

| TGP - Outage Impact Report<br>Seven Day Forecast (updated 06/13/19)                                                                                                                                                                                                                                                                                                                                                |                                                  |                    |                  |                  |                   |                     |                    |                  | -Primary impact restrictions may be necessary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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|                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                  |                    |                  |                  |                   |                     |                    |                  | -Major impact restrictions may be necessary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                  |                    |                  |                  |                   |                     |                    |                  | -Minor impact restrictions may be necessary depending on flow conditions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                  |                    |                  |                  |                   |                     |                    |                  | -Little to no impact, though minor outages may cause incremental reductions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Station # / Lateral<br>(FH)=forward haul<br>(BH)=backward haul                                                                                                                                                                                                                                                                                                                                                     | Est Nominal<br>Design Capacity<br>(Thousand Dth) | Saturday<br>(6/15) | Sunday<br>(6/16) | Monday<br>(6/17) | Tuesday<br>(6/18) | Wednesday<br>(6/19) | Thursday<br>(6/20) | Friday<br>(6/21) | Primary Outage(s) that may Impact Throughput                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Est. Operational Capacity (Operational Impact) - Thousand Dth                                                                                                                                                                                                                                                                                                                                                      |                                                  |                    |                  |                  |                   |                     |                    |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Station 409<br>(Donna Line)<br>(segment 490<br>FH)                                                                                                                                                                                                                                                                                                                                                                 | 567                                              | 567                | 567              | 567              | 567               | 567                 | 567                | 567              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Station 1<br>(segment 101<br>BH)                                                                                                                                                                                                                                                                                                                                                                                   | 269                                              | 269                | 269              | 269              | 269               | 269                 | 269                | 269              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Station 9<br>(segment 109<br>BH)                                                                                                                                                                                                                                                                                                                                                                                   | 1,000                                            | 1,000              | 1,000            | 1,000            | 1,000             | 963<br>(37)         | 1,000              | 1,000            | Sta 11A: Lube Oil System Inspection (6/19/2019)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| MLV 822<br>(segment 820<br>BH)                                                                                                                                                                                                                                                                                                                                                                                     | 1,052                                            | 1,052              | 1,052            | 1,052            | 200<br>(852)      | 1,052               | 200<br>(852)       | 1,052            | Sta 823 to STA 820-1: Maintenance Pig (M)(6/18/2019 - 6/20/2019)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Station 548<br>(segment 542<br>BH)                                                                                                                                                                                                                                                                                                                                                                                 | 1,514                                            | 900<br>(614)       | 825<br>(689)     | 825<br>(689)     | 825<br>(689)      | 825<br>(689)        | 825<br>(689)       | 825<br>(689)     | MLV 538-2 TO MLV 542-2: Make Piggable (M)(4/29/2019 - 6/28/2019)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Station 860<br>(segment 548<br>BH)                                                                                                                                                                                                                                                                                                                                                                                 | 1,537                                            | 1345<br>(192)      | 1345<br>(192)    | 1345<br>(192)    | 1345<br>(192)     | 1345<br>(192)       | 1345<br>(192)      | 1345<br>(192)    | Sta 550: Unit 2A: Foundation Repair (4/1/2019 - 9/15/2019)<br>MLV 550-1 TO MLV 555-1: Remediaton (6/3/2019 - 7/3/2019)<br>MLVS 557L-3: Make Piggable (5/1/2019 - 6/30/2019)                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Station 87<br>500 Leg<br>(Segment 860<br>BH)                                                                                                                                                                                                                                                                                                                                                                       | 1,821                                            | 1375<br>(446)      | 1375<br>(446)    | 1375<br>(446)    | 1375<br>(446)     | 1375<br>(446)       | 1375<br>(446)      | 1375<br>(446)    | Sta 860: Controls Upgrage (5/21/2019 - 7/19/2019)<br>Sta 860: Replace 3A Unit Valve & Scrubber Work (6/3/2019 - 6/21/2019)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Station 110<br>(segment 187<br>BH)<br>(south thru<br>Kentucky)                                                                                                                                                                                                                                                                                                                                                     | 2,659                                            | 2500<br>(159)      | 2500<br>(159)    | 2250<br>(409)    | 2250<br>(409)     | 2250<br>(409)       | 2250<br>(409)      | 2550<br>(109)    | Sta 87: Unit 2E: Zero Base Maintenance (4/8/2019 - 6/17/2019)<br>MLVS 87-2D: Make Piggable (5/1/2019 - 6/30/2019)<br>MLV 87-2D TO MLV 96-2S: Remediation (5/13/2019 - 7/19/2019)<br>Sta 110: Substation Inspection (6/17/2019 - 6/20/2019)<br>Sta 110: Annual ESD test (6/17/2019 - 6/20/2019)                                                                                                                                                                                                                                                                                                                              |
| Station 114<br>(segment 114<br>BH)                                                                                                                                                                                                                                                                                                                                                                                 | 920                                              | 920                | 920              | 920              | 920               | 920                 | 920                | 920              | MLVS 122: Broad Run Cornwell Meter: Emergent Repair (8/8/2017 - 10/31/2019)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Station 204<br>(Segment 204<br>BH)                                                                                                                                                                                                                                                                                                                                                                                 | 1,833                                            | 1690<br>(143)      | 1690<br>(143)    | 1690<br>(143)    | 1690<br>(143)     | 1745<br>(88)        | 1745<br>(88)       | 1745<br>(88)     | Sta 204: Unit 1A: Repair Crankshaft (9/17/2018 - 7/4/2019)<br>MLV 209-3 TO MLV 204-3: Pig Runs - Cleaning/Gauge 6/11/19, MFL/AFD 6/13/19, Hardspot/EMAT 6/18/19 (6/11/2019 - 6/18/2019)<br>Sta 209: Unit 3A: Foundation Replacement (5/9/2019 - 8/15/2019)<br>Sta 209: Unit 10A: Repair Gas Leak on Compressor (6/17/2019 - 6/25/2019)<br>MLVS 213-3: Pipe Replacement (5/17/2019 - 7/19/2019)<br>Sta 214: Unit 2A: Power and Compressor Work (5/20/2019 - 6/30/2019)<br>Sta 214: Unit 6A: Replace Power Side Head (6/17/2019 - 6/21/2019)<br>Sta 214: Unit 10A: Install Air Fuel Control Equipment (6/17/2019 - 6/21/2019) |
| Station 230C<br>(segment 296<br>FH)                                                                                                                                                                                                                                                                                                                                                                                | 743                                              | 743                | 743              | 743              | 485<br>(258)      | 485<br>(258)        | 743                | 300<br>(443)     | MLV 230B-201 TO MLV 230B-205: Pig run - Cleaning & Gage 6/21, Combo 6/24 (6/21/2019 - 6/24/2019)<br>MLV 230B-205 TO 230B-207: Pig run - Cleaning & Gage 6/18, Combo 6/19 (6/18/2019 - 6/19/2019)                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Station 245<br>(segment 245<br>FH)                                                                                                                                                                                                                                                                                                                                                                                 | 1,014                                            | 800<br>(214)       | 800<br>(214)     | 800<br>(214)     | 800<br>(214)      | 910<br>(104)        | 910<br>(104)       | 910<br>(104)     | Sta 241: Unit 1A: Catalyst Cleaning (5/23/2019 - 6/21/2019)<br>Sta 245: Annual ESD test & Station Maintenance (6/10/2019 - 6/18/2019)<br>Sta 249: Unit 1A: Auto Balance System Installation (6/13/2019 - 6/21/2019)                                                                                                                                                                                                                                                                                                                                                                                                         |
| Station 254<br>(segment 256<br>FH)                                                                                                                                                                                                                                                                                                                                                                                 | 1,195                                            | 1185<br>(10)       | 1185<br>(10)     | 1185<br>(10)     | 1185<br>(10)      | 1185<br>(10)        | 1185<br>(10)       | 1185<br>(10)     | Sta 254: Unit 4A: Foundation Repair (3/8/2019 - 7/8/2019)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Station 261<br>Suction<br>(segment 260<br>FH)                                                                                                                                                                                                                                                                                                                                                                      | 1,121                                            | 1,121              | 1,121            | 1,121            | 1,121             | 1,121               | 1,121              | 1,121            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Station 307<br>(segment 307<br>BH)                                                                                                                                                                                                                                                                                                                                                                                 | 1,147                                            | 1135<br>(12)       | 1135<br>(12)     | 1030<br>(117)    | 935<br>(212)      | 1030<br>(117)       | 935<br>(212)       | 1030<br>(117)    | MLV 301-1 to MLV 302-1: EMAT Anomaly Remediation (6/8/2019 - 7/3/2019)<br>Sta 303A: Compressor & Electrical (6/10/2019 - 6/21/2019)<br>MLV 313-1 TO MLV 307-1: Pig Runs - Cleaning/Gauge 6/13/19, ILI 6/18/19, Hard Spot 6/20/19 (6/13/2019 - 6/20/2019)                                                                                                                                                                                                                                                                                                                                                                    |
| Station 315<br>(segment 315<br>BH)                                                                                                                                                                                                                                                                                                                                                                                 | 1,927                                            | 1,927              | 1,927            | 1,927            | 1825<br>(102)     | 1825<br>(102)       | 1,927              | 1,927            | Sta 315: Unit A2: Repair Leak (6/18/2019 - 6/19/2019)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Sta. 325<br>(segment 324<br>FH)                                                                                                                                                                                                                                                                                                                                                                                    | 1,600                                            | 1,600              | 1,600            | 1,600            | 1,600             | 1,600               | 1,600              | 1,600            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Sta. 405<br>HC Line<br>(segment 299<br>FH)                                                                                                                                                                                                                                                                                                                                                                         | 803                                              | 1173<br>(20)       | 1173<br>(20)     | 1173<br>(20)     | 1173<br>(20)      | 1173<br>(20)        | 1173<br>(20)       | 1173<br>(20)     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Sta. 229<br>(segment 224<br>FH)                                                                                                                                                                                                                                                                                                                                                                                    | 390                                              |                    |                  |                  |                   |                     |                    |                  | Sta 224: Unit 1A & 3A: Oil Coolers (6/3/2019 - 7/19/2019)<br>Sta 229 Unit 2A: Unit Valve Actuators (6/3/2019 - 6/21/2019)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| This document is updated on a weekly basis and outage schedules/impacts are subject to change as the week progresses.<br>Dates posted on DART should be deemed correct in the event of conflicts between DART posted dates and dates within this forecasted on this report.<br>The impacts sheet are based on steady-state hydraulic models assuming recent operating flows, conditions, and various unit outages. |                                                  |                    |                  |                  |                   |                     |                    |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

| <b>Outage Capacity Impact Report</b><br><b>June 2019 (updated 06/13/19)</b> |                                            |                                                               |                         |                         |                         | -Primary impact restrictions may be necessary<br>-Major impact restrictions may be necessary<br>-Minor impact restrictions may be necessary depending on flow conditions<br>-Little to no impact, though minor outages may cause incremental reductions                                                                                                                          |
|-----------------------------------------------------------------------------|--------------------------------------------|---------------------------------------------------------------|-------------------------|-------------------------|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Station # / Lateral                                                         | Est Nominal Design Capacity (Thousand Dth) | Week 1<br>(6/3 - 6/9)                                         | Week 2<br>(6/10 - 6/16) | Week 3<br>(6/17 - 6/23) | Week 4<br>(6/24 - 6/30) | Primary Outage(s)                                                                                                                                                                                                                                                                                                                                                                |
|                                                                             |                                            | Est. Operational Capacity (Operational Impact) - Thousand Dth |                         |                         |                         |                                                                                                                                                                                                                                                                                                                                                                                  |
| Station 409 (Donna Line) (segment 490 FH)                                   | 567                                        |                                                               |                         |                         | 567                     | Sta 409: Cooling Maintenance (6/23/2019)                                                                                                                                                                                                                                                                                                                                         |
| Station 1 (segment 101 BH)                                                  | 269                                        |                                                               |                         |                         | 269                     |                                                                                                                                                                                                                                                                                                                                                                                  |
| Station 9 (segment 109 BH)                                                  | 1,000                                      |                                                               |                         |                         | 1,000                   |                                                                                                                                                                                                                                                                                                                                                                                  |
| Station 548 (segment 542 BH)                                                | 1,514                                      |                                                               |                         |                         | 825 (689)               | MLV 538-2 TO MLV 542-2: Make Piggable (M)(4/29/2019 - 6/28/2019)                                                                                                                                                                                                                                                                                                                 |
| Station 860 (segment 548 BH)                                                | 1,537                                      |                                                               |                         |                         | 1345 (192)              | Sta 550: Unit 2A: Foundation Repair (4/1/2019 - 9/15/2019)<br>MLV 550-1 TO MLV 555-1: Remediaton (6/3/2019 - 7/3/2019)<br>MLVS 557L-3: Make Piggable (5/1/2019 - 6/30/2019)                                                                                                                                                                                                      |
| Station 87 500 Leg (Segment 860 BH)                                         | 1,821                                      |                                                               |                         |                         | 1770 (50)               | Sta 860: Controls Upgrade (5/21/2019 - 7/19/2019)                                                                                                                                                                                                                                                                                                                                |
| Station 110 (segment 187 BH) (south thru Kentucky)                          | 2,659                                      |                                                               |                         |                         | 2550 (109)              | MLVS 87-2D: Make Piggable (5/1/2019 - 6/30/2019)<br>MLV 87-2D TO MLV 96-2S: Remediaton (5/13/2019 - 7/19/2019)                                                                                                                                                                                                                                                                   |
| Station 114 (segment 114 BH)                                                | 920                                        |                                                               |                         |                         | 920                     | MLVS 122: Broad Run Cornwell Meter: Emergent Repair (8/8/2017 - 10/31/2019)                                                                                                                                                                                                                                                                                                      |
| Station 204 (Segment 204 BH)                                                | 1,833                                      |                                                               |                         |                         | 1600 (233)              | Sta 200: Annual ESD test (6/25/2019)<br>Sta 204: Unit 1A: Repair Crankshaft (9/17/2018 - 7/4/2019)<br>Sta 209: Unit 3A: Foundation Replacement (5/9/2019 - 8/15/2019)<br>Sta 209: Unit 10A: Repair Gas Leak on Compressor (6/17/2019 - 6/25/2019)<br>MLVS 213-3: Pipe Replacement (5/17/2019 - 7/19/2019)<br>Sta 214: Unit 2A: Power and Compressor Work (5/20/2019 - 6/30/2019) |
| Station 230C (segment 296 FH)                                               | 743                                        |                                                               |                         |                         | 300 (443)               | MLV 230B-201 TO MLV 230B-205: Pig run - Cleaning & Gage 6/21, Combo 6/24 (6/21/2019 - 6/24/2019)                                                                                                                                                                                                                                                                                 |
| Station 245 (segment 245 FH)                                                | 1,014                                      |                                                               |                         |                         | 910 (104)               | Sta 249: Unit 1A: Crankcase Inspection (6/24/2019 - 6/28/2019)                                                                                                                                                                                                                                                                                                                   |
| Station 254 (segment 256 FH)                                                | 1,195                                      |                                                               |                         |                         | 1185 (10)               | Sta 254: Unit 4A: Foundation Repair (3/8/2019 - 7/8/2019)                                                                                                                                                                                                                                                                                                                        |
| Station 261 Suction (segment 260 FH)                                        | 1,121                                      |                                                               |                         |                         | 1,121                   |                                                                                                                                                                                                                                                                                                                                                                                  |
| Station 307 (segment 307 BH)                                                | 1,147                                      |                                                               |                         |                         | 1135 (12)               | MLV 301-1 to MLV 302-1: EMAT Anomaly Remediation (6/8/2019 - 7/3/2019)                                                                                                                                                                                                                                                                                                           |
| Station 315 (segment 315 BH)                                                | 1,927                                      |                                                               |                         |                         | 1,927                   |                                                                                                                                                                                                                                                                                                                                                                                  |
| Sta. 325 (segment 324 FH)                                                   | 1,600                                      |                                                               |                         |                         | 1,600                   |                                                                                                                                                                                                                                                                                                                                                                                  |
| Sta. 405 HC Line (segment 299 FH)                                           | 803                                        |                                                               |                         |                         | 1173 (20)               |                                                                                                                                                                                                                                                                                                                                                                                  |
| Station 229 (segment 224 FH)                                                | 390                                        |                                                               |                         |                         |                         | Sta 224: Unit 1A & 3A: Oil Coolers (6/3/2019 - 7/19/2019)                                                                                                                                                                                                                                                                                                                        |

This document is updated on a weekly basis and outage schedules/impacts are subject to change as the week progresses.

Dates posted on DART should be deemed correct in the event of conflicts between DART posted dates and dates within this forecasted on this report.

The impacts sheet are based on steady-state hydraulic models assuming recent operating flows, conditions, and various unit outages.

| Outage Capacity Impact Report<br>July 2019 (updated 06/13/19)                                                                                                                                                                                                                                                                                                                                                      |                                            |                                                               |                        |                         |                         |                        | -Primary impact restrictions may be necessary<br>-Major impact restrictions may be necessary<br>-Minor impact restrictions may be necessary depending on flow conditions<br>-Little to no impact, though minor outages may cause incremental reductions                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|---------------------------------------------------------------|------------------------|-------------------------|-------------------------|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Station # / Lateral                                                                                                                                                                                                                                                                                                                                                                                                | Est Nominal Design Capacity (Thousand Dth) | Week 1<br>(7/1 - 7/7)                                         | Week 2<br>(7/8 - 7/14) | Week 3<br>(7/15 - 7/21) | Week 4<br>(7/22 - 7/28) | Week 5<br>(7/29 - 8/4) | Primary Outage(s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                    |                                            | Est. Operational Capacity (Operational Impact) - Thousand Dth |                        |                         |                         |                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Station 409 (Donna Line) (segment 490 FH)                                                                                                                                                                                                                                                                                                                                                                          | 567                                        | 567                                                           | 567                    | 567                     | 567                     | 567                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Station 1 (segment 101 BH)                                                                                                                                                                                                                                                                                                                                                                                         | 269                                        | 269                                                           | 269                    | 269                     | 269                     | 269                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Station 9 (segment 109 BH)                                                                                                                                                                                                                                                                                                                                                                                         | 1,000                                      | 1,000                                                         | 1,000                  | 1,000                   | 1,000                   | 1,000                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Sta 847 (segment 847 FH)                                                                                                                                                                                                                                                                                                                                                                                           | 620                                        | 620                                                           | 620                    | 620                     | 620                     | 0<br>(620)             | MLVS 856-1: Spike Test (7/29/2019 - 8/31/2019)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Station 548 (segment 542 BH)                                                                                                                                                                                                                                                                                                                                                                                       | 1,514                                      | 1,514                                                         | 990<br>(524)           | 990<br>(524)            | 1,514                   | 1,514                  | MLV 538-2 TO MLV 542-2: Pig run - Chem Cleaning 7/9/19 - 7/12/19, Gauge 7/13/19, AFD 7/16/19, EMAT 7/18/19 (7/9/2019 - 7/18/2019)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Station 860 (segment 548 BH)                                                                                                                                                                                                                                                                                                                                                                                       | 1,537                                      | 1345<br>(192)                                                 | 1445<br>(92)           | 1435<br>(102)           | 1470<br>(67)            | 1470<br>(67)           | Sta 550: Annual ESD test (7/15/2019 - 7/19/2019)<br>Sta 550: Unit 2A: Foundation Repair (4/1/2019 - 9/15/2019)<br>MLV 550-1 TO MLV 555-1: Remediaton (6/3/2019 - 7/3/2019)<br>MLV 550-2 TO MLV 554-2R: Remediaton (7/8/2019 - 7/13/2019)                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Station 87 500 Leg (Segment 860 BH)                                                                                                                                                                                                                                                                                                                                                                                | 1,821                                      | 1770<br>(50)                                                  | 1770<br>(50)           | 1770<br>(50)            | 1,821                   | 1,821                  | Sta 860: Controls Upgrade (5/21/2019 - 7/19/2019)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Station 110 (segment 187 BH) (south thru Kentucky)                                                                                                                                                                                                                                                                                                                                                                 | 2,659                                      | 2550<br>(109)                                                 | 2270<br>(389)          | 2370<br>(289)           | 2370<br>(289)           | 2370<br>(289)          | Sta 87: Annual ESD test (7/9/2019)<br>MLV 87-2D TO MLV 96-2S: Remediaton (5/13/2019 - 7/19/2019)<br>MLV 96-2S to MLV 87-2D: Pig Runs - Caliper 7/18/19, MDS 8/1/19 (7/18/2019 - 8/1/2019)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Station 114 (segment 114 BH)                                                                                                                                                                                                                                                                                                                                                                                       | 920                                        | 920                                                           | 920                    | 920                     | 920                     | 395<br>(525)           | MLVS 120-2: Pipe Replacement (8/1/2019 - 8/15/2019)<br>MLVS 121-2: Recoat / Painting (8/1/2019 - 8/15/2019)<br>MLVS 122: Broad Run Cornwell Meter: Emergent Repair (8/8/2017 - 10/31/2019)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Station 204 (Segment 204 BH)                                                                                                                                                                                                                                                                                                                                                                                       | 1,833                                      | 1800<br>(33)                                                  | 1555<br>(278)          | 1690<br>(143)           | 1690<br>(143)           | 1535<br>(298)          | Sta 204: Mainline Filter (7/29/2019 - 8/2/2019)<br>Sta 204: Unit 1A: Repair Crankshaft (9/17/2018 - 7/4/2019)<br>MLV 209-2 TO MLV 204-2: Pig Run - Cleaning/Gauge 7/16/19, MFU/AFD 7/18/19, Hardspot/EMAT 7/23/19 (7/16/2019 - 7/23/2019)<br>Sta 209: Auxiliary Controls Upgrade (7/8/2019 - 7/12/2019)<br>Sta 209: Unit 3A: Foundation Replacement (5/9/2019 - 8/15/2019)<br>MLVS 213-2: Pipe Replacement (7/19/2019 - 11/1/2019)<br>MLVS 213-3: Pipe Replacement (5/17/2019 - 7/19/2019)<br>MLV 219-1 TO MLV 214-1: Pig run - Cleaning 7/16/19, MFL 7/18/19 (7/16/2019 - 7/18/2019)<br>MLV 219-1 TO MLV 214-1: Pig Run - Cleaning/Gauge 7/25/19, ILI 7/30/19, Hardspot 8/1/19 (7/25/2019 - 8/1/2019) |
| Station 245 (segment 245 FH)                                                                                                                                                                                                                                                                                                                                                                                       | 1,014                                      | 755<br>(259)                                                  | 755<br>(259)           | 1,014                   | 1,014                   | 1,014                  | MLV 245-1 to MLV 249-1: Pig run - Cleaning & Gage 7/1, Combo 7/2, Hard Spot 7/9 (7/1/2019 - 7/9/2019)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Station 254 (segment 256 FH)                                                                                                                                                                                                                                                                                                                                                                                       | 1,195                                      | 1185<br>(10)                                                  | 1185<br>(10)           | 1,195                   | 1,195                   | 1,195                  | Sta 254: Unit 4A: Foundation Repair (3/8/2019 - 7/8/2019)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Station 261 Suction (segment 260 FH)                                                                                                                                                                                                                                                                                                                                                                               | 1,121                                      | 1,121                                                         | 1,121                  | 1,121                   | 1,121                   | 1,121                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Station 307 (segment 307 BH)                                                                                                                                                                                                                                                                                                                                                                                       | 1,147                                      | 1135<br>(12)                                                  | 1,147                  | 730<br>(417)            | 1,147                   | 1,147                  | MLV 219-3 TO MLV 307-2: Remediaton (M)(7/15/2019 - 7/19/2019)<br>MLV 301-1 to MLV 302-1: EMAT Anomaly Remediation (6/8/2019 - 7/3/2019)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Station 315 (segment 315 BH)                                                                                                                                                                                                                                                                                                                                                                                       | 1,927                                      | 1,927                                                         | 1600<br>(327)          | 1,927                   | 1,927                   | 1,927                  | Sta 315: Annual ESD test (7/9/2019)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Sta. 325 (segment 324 FH)                                                                                                                                                                                                                                                                                                                                                                                          | 1,600                                      | 1,600                                                         | 1475<br>(125)          | 1325<br>(275)           | 1,600                   | 1,600                  | Sta 323: Substation Inspection (7/10/2019 - 7/12/2019)<br>Sta 325: Annual ESD test (7/19/2019)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Sta. 405 HC Line (segment 299 FH)                                                                                                                                                                                                                                                                                                                                                                                  | 803                                        | 1173<br>(20)                                                  | 1128<br>(65)           | 1173<br>(20)            | 1,193                   | 1,193                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Station 229 (segment 224 FH)                                                                                                                                                                                                                                                                                                                                                                                       | 390                                        |                                                               |                        |                         |                         |                        | Sta 224: Unit 1A & 3A: Oil Coolers (6/3/2019 - 7/19/2019)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| This document is updated on a weekly basis and outage schedules/impacts are subject to change as the week progresses.<br>Dates posted on DART should be deemed correct in the event of conflicts between DART posted dates and dates within this forecasted on this report.<br>The impacts sheet are based on steady-state hydraulic models assuming recent operating flows, conditions, and various unit outages. |                                            |                                                               |                        |                         |                         |                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

| Outage Capacity Impact Report<br>August 2019 (updated 06/13/19)                                                                                                                                                                                                                                                                                                                                                    |                                               |                                                               |                         |                         |                        | -Primary impact restrictions may be necessary                                                                                                                                                                                                                                                                                                                                                                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|---------------------------------------------------------------|-------------------------|-------------------------|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                    |                                               |                                                               |                         |                         |                        | -Major impact restrictions may be necessary                                                                                                                                                                                                                                                                                                                                                                       |
|                                                                                                                                                                                                                                                                                                                                                                                                                    |                                               |                                                               |                         |                         |                        | -Minor impact restrictions may be necessary depending on flow conditions                                                                                                                                                                                                                                                                                                                                          |
|                                                                                                                                                                                                                                                                                                                                                                                                                    |                                               |                                                               |                         |                         |                        | -Little to no impact, though minor outages may cause incremental reductions                                                                                                                                                                                                                                                                                                                                       |
| Station # / Lateral                                                                                                                                                                                                                                                                                                                                                                                                | Est Nominal Design Capacity<br>(Thousand Dth) | Week 1<br>(8/5 - 8/11)                                        | Week 2<br>(8/12 - 8/18) | Week 3<br>(8/19 - 8/25) | Week 4<br>(8/26 - 9/1) | Primary Outage(s)                                                                                                                                                                                                                                                                                                                                                                                                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                    |                                               | Est. Operational Capacity (Operational Impact) - Thousand Dth |                         |                         |                        |                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Station 409<br>(Donna Line)<br>(segment 490 FH)                                                                                                                                                                                                                                                                                                                                                                    | 567                                           | 567                                                           | 567                     | 567                     | 567                    |                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Station 1<br>(segment 101 BH)                                                                                                                                                                                                                                                                                                                                                                                      | 269                                           | 269                                                           | 269                     | 269                     | 269                    |                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Station 9<br>(segment 109 BH)                                                                                                                                                                                                                                                                                                                                                                                      | 1,000                                         | 880<br>(120)                                                  | 865<br>(135)            | 1,000                   | 1,000                  | Sta 9: Building C Tie-In (8/12/2019 - 8/16/2019)<br>MLV 17-1 to MLV 9-1: Pig Run - Cleaning 8/5 - 8/10, Gauge 8/13, EMAT 8/14 (8/5/2019 - 8/14/2019)                                                                                                                                                                                                                                                              |
| Station 25<br>(segment 125 BH)                                                                                                                                                                                                                                                                                                                                                                                     | 876                                           | 876                                                           | 760<br>(116)            | 550<br>(326)            | 876                    | Sta 40-1 to Sta 32-1: Maintenance Pig (8/14/2019)<br>Sta 40-3 to Sta 32-3: Maintenance Pig (8/21/2019)                                                                                                                                                                                                                                                                                                            |
| Sta 847<br>(segment 847 FH)                                                                                                                                                                                                                                                                                                                                                                                        | 620                                           | 0<br>(620)                                                    | 0<br>(620)              | 0<br>(620)              | 0<br>(620)             | MLVS 856-1: Spike Test (7/29/2019 - 8/31/2019)                                                                                                                                                                                                                                                                                                                                                                    |
| Station 860<br>(segment 548 BH)                                                                                                                                                                                                                                                                                                                                                                                    | 1,537                                         | 1470<br>(67)                                                  | 1470<br>(67)            | 1470<br>(67)            | 1470<br>(67)           | Sta 550: Unit 2A: Foundation Repair (4/1/2019 - 9/15/2019)<br>MLV 557-3 TO MLV 559-3: Pig run - Cleaning 8/12/19, MFL Combo 8/14/19 (8/12/2019 - 8/14/2019)                                                                                                                                                                                                                                                       |
| Station 110<br>(segment 187 BH)<br>(south thru Kentucky)                                                                                                                                                                                                                                                                                                                                                           | 2,659                                         | 2,659                                                         | 2500<br>(159)           | 2500<br>(159)           | 2500<br>(159)          | Sta 87: Unit 1E & 2E: Controls Upgrade (8/13/2019 - 10/29/2019)                                                                                                                                                                                                                                                                                                                                                   |
| Station 114<br>(segment 114 BH)                                                                                                                                                                                                                                                                                                                                                                                    | 920                                           | 395<br>(525)                                                  | 395<br>(525)            | 510<br>(410)            | 920                    | MLV 121-2A to MLV 119-2: Pig run - Cleaning 8/20/19, MDS 8/21/19 (8/20/2019 - 8/21/2019)<br>MLVS 120-2: Pipe Replacement (8/1/2019 - 8/15/2019)<br>MLVS 121-2: Recoat / Painting (8/1/2019 - 8/15/2019)<br>MLVS 122: Broad Run Cornwell Meter: Emergent Repair (8/8/2017 - 10/31/2019)                                                                                                                            |
| Station 204<br>(Segment 204 BH)                                                                                                                                                                                                                                                                                                                                                                                    | 1,833                                         | 1420<br>(413)                                                 | 1775<br>(58)            | 1775<br>(58)            | 1800<br>(33)           | Sta 209: Unit 3A: Foundation Replacement (5/9/2019 - 8/15/2019)<br>MLV 214-4 to MLV 209-4: Pig Run - Cleaning/Gauge 8/6/19, MFL 8/8/19 (8/6/2019 - 8/8/2019)<br>MLVS 213-2: Pipe Replacement (7/19/2019 - 11/1/2019)<br>MLV 219-2 to MLV 214-2: Pig Runs - Cleaning/Gauge 8/13/19, ILI 8/15/19 (8/13/2019 - 8/15/2019)<br>MLV 219-2 TO MLV 214-2: Pig Run - ILI 8/20/19, Hardspot 8/22/19 (8/20/2019 - 8/22/2019) |
| Station 245<br>(segment 245 FH)                                                                                                                                                                                                                                                                                                                                                                                    | 1,014                                         | 950<br>(64)                                                   | 950<br>(64)             | 920<br>(94)             | 920<br>(94)            | Sta 237: Annual ESD test (8/20/2019)<br>MLVS 244-1: Hydro Test (8/23/2019 - 9/20/2019)<br>Sta 249: Unit 1B: 50K Hr Overhaul (8/5/2019 - 9/7/2019)                                                                                                                                                                                                                                                                 |
| Station 261<br>Suction<br>(segment 260 FH)                                                                                                                                                                                                                                                                                                                                                                         | 1,121                                         | 1,121                                                         | 1010<br>(111)           | 1,121                   | 825<br>(296)           | Sta 261: Unit 1D: Turbine Exchange (8/13/2019 - 8/16/2019)<br>Sta 264: Annual ESD test (8/28/2019)                                                                                                                                                                                                                                                                                                                |
| Station 307<br>(segment 307 BH)                                                                                                                                                                                                                                                                                                                                                                                    | 1,147                                         | 1,147                                                         | 1,147                   | 1140<br>(7)             | 1140<br>(7)            | Sta 219: Unit 1B: Controls Upgrade (8/20/2019 - 10/11/2019)                                                                                                                                                                                                                                                                                                                                                       |
| Station 315<br>(segment 315 BH)                                                                                                                                                                                                                                                                                                                                                                                    | 1,927                                         | 1,927                                                         | 1,927                   | 1,927                   | 1,927                  |                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Sta. 325<br>(segment 324 FH)                                                                                                                                                                                                                                                                                                                                                                                       | 1,600                                         | 1,600                                                         | 1,600                   | 1,600                   | 1,600                  |                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Sta. 405<br>HC Line<br>(segment 299 FH)                                                                                                                                                                                                                                                                                                                                                                            | 803                                           | 1,193                                                         | 1,193                   | 1,193                   | 1,193                  |                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Station 229<br>(segment 224 FH)                                                                                                                                                                                                                                                                                                                                                                                    | 390                                           |                                                               |                         |                         |                        |                                                                                                                                                                                                                                                                                                                                                                                                                   |
| This document is updated on a weekly basis and outage schedules/impacts are subject to change as the week progresses.<br>Dates posted on DART should be deemed correct in the event of conflicts between DART posted dates and dates within this forecasted on this report.<br>The impacts sheet are based on steady-state hydraulic models assuming recent operating flows, conditions, and various unit outages. |                                               |                                                               |                         |                         |                        |                                                                                                                                                                                                                                                                                                                                                                                                                   |

| <b>Outage Capacity Impact Report</b><br><b>September 2019 (updated 06/13/19)</b> |                                            |                                                               |                        |                         |                         | -Primary impact restrictions may be necessary<br>-Major impact restrictions may be necessary<br>-Minor impact restrictions may be necessary depending on flow conditions<br>-Little to no impact, though minor outages may cause incremental reductions |
|----------------------------------------------------------------------------------|--------------------------------------------|---------------------------------------------------------------|------------------------|-------------------------|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Station # / Lateral                                                              | Est Nominal Design Capacity (Thousand Dth) | Week 1<br>(9/2 - 9/8)                                         | Week 2<br>(9/9 - 9/15) | Week 3<br>(9/16 - 9/22) | Week 4<br>(9/23 - 9/29) | Primary Outage(s)                                                                                                                                                                                                                                       |
|                                                                                  |                                            | Est. Operational Capacity (Operational Impact) - Thousand Dth |                        |                         |                         |                                                                                                                                                                                                                                                         |
| Station 409 (Donna Line) (segment 490 FH)                                        | 567                                        | 567                                                           | 0<br>(567)             | 0<br>(567)              | 567                     | MLVS 409A-102: Pipe Replacement (M)(9/13/2019 - 9/17/2019)                                                                                                                                                                                              |
| Station 1 (segment 101 BH)                                                       | 269                                        | 269                                                           | 269                    | 269                     | 269                     |                                                                                                                                                                                                                                                         |
| Station 9 (segment 109 BH)                                                       | 1,000                                      | 1,000                                                         | 530<br>(470)           | 530<br>(470)            | 530<br>(470)            | MLV 17-2 to MLV 9-2D: Pig runs - Chem Clean 9/12/19 - 9/18/19, Gauge 9/20/19, AFD 9/24/19, EMAT 9/26/19 (9/12/2019 - 9/26/2019)                                                                                                                         |
| Station 860 (segment 548 BH)                                                     | 1,537                                      | 1470<br>(67)                                                  | 1470<br>(67)           | 1,537                   | 1,537                   | Sta 550: Unit 2A: Foundation Repair (4/1/2019 - 9/15/2019)                                                                                                                                                                                              |
| Station 87 500 Leg (Segment 860 BH)                                              | 1,821                                      | 1,821                                                         | 1,821                  | 1375<br>(446)           | 1,821                   | Sta 860: Annual ESD test (9/18/2019)                                                                                                                                                                                                                    |
| Station 110 (segment 187 BH) (south thru Kentucky)                               | 2,659                                      | 2500<br>(159)                                                 | 2370<br>(289)          | 2370<br>(289)           | 2500<br>(159)           | Sta 87: Unit 1E & 2E: Controls Upgrade (8/13/2019 - 10/29/2019)<br>MLV 95-2 to MLV 87-2D: Pig Runs - Cleaning 9/10, AFD 9/12, EMAT 9/17 (9/10/2019 - 9/17/2019)                                                                                         |
| Station 114 (segment 114 BH)                                                     | 920                                        | 920                                                           | 920                    | 920                     | 920                     | MLVS 122: Broad Run Cornwell Meter: Emergent Repair (8/8/2017 - 10/31/2019)                                                                                                                                                                             |
| Station 204 (Segment 204 BH)                                                     | 1,833                                      | 1800<br>(33)                                                  | 1785<br>(48)           | 1785<br>(48)            | 1800<br>(33)            | MLV 209-1 TO MLV 204-1: Pig Runs - Cleaning/Gauge 9/10/19, MFL/AFD 9/12/19, Hardspot/EMAT 9/17/19 (9/10/2019 - 9/17/2019)<br>MLVS 213-2: Pipe Replacement (7/19/2019 - 11/1/2019)                                                                       |
| Station 245 (segment 245 FH)                                                     | 1,014                                      | 920<br>(94)                                                   | 745<br>(269)           | 745<br>(269)            | 990<br>(24)             | Sta 241: Air Compressor, Switchgear, and UPS upgrade (9/9/2019 - 9/20/2019)<br>MLVS 244-1: Hydro Test (8/23/2019 - 9/20/2019)<br>Sta 245: Unit 1C: Turbine Exchange (9/27/2019 - 10/4/2019)<br>Sta 249: Unit 1B: 50K Hr Overhaul (8/5/2019 - 9/7/2019)  |
| Station 261 Suction (segment 260 FH)                                             | 1,121                                      | 1,121                                                         | 1,121                  | 1,121                   | 1,121                   |                                                                                                                                                                                                                                                         |
| Station 307 (segment 307 BH)                                                     | 1,147                                      | 1000<br>(147)                                                 | 1140<br>(7)            | 1140<br>(7)             | 1140<br>(7)             | Sta 219: Unit 1B: Controls Upgrade (8/20/2019 - 10/11/2019)<br>Sta 310: Annual ESD test (9/6/2019)                                                                                                                                                      |
| Station 315 (segment 315 BH)                                                     | 1,927                                      | 1825<br>(102)                                                 | 1,927                  | 1775<br>(152)           | 1,927                   | Sta 315: Unit 2A: 4k Maintenance (9/3/2019 - 9/4/2019)<br>Sta 315: Unit 1B: 4k Maintenance (9/4/2019)<br>Sta 317: Annual ESD test (9/21/2019)                                                                                                           |
| Sta. 325 (segment 324 FH)                                                        | 1,600                                      | 1,600                                                         | 1,600                  | 1,600                   | 1,600                   |                                                                                                                                                                                                                                                         |
| Sta. 405 HC Line (segment 299 FH)                                                | 803                                        | 1,193                                                         | 625<br>(568)           | 1,193                   | 1,193                   | MLV 313A-402 and MLV 313A-409: MLV Stem Replacement (M)(9/9/2019 - 9/13/2019)                                                                                                                                                                           |
| Station 229 (segment 224 FH)                                                     | 390                                        |                                                               |                        |                         |                         |                                                                                                                                                                                                                                                         |

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The impacts sheet are based on steady-state hydraulic models assuming recent operating flows, conditions, and various unit outages.