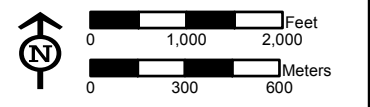
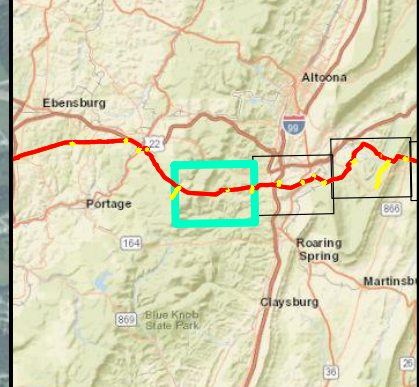


Start of Line PADEP
Southcentral Region
Lat: 40° 24' 31.563" N
Lon: 78° 33' 32.363" W

Legend

- Access Road
- Alignment Centerline
- Limit of Disturbance
- Block Valve/Station
- Brallier and Harrel Formations Undevided (Dbh)
- Catskill Formation (Dck)
- Foreknobs Formations (Df)
- Scherr Formation (Ds)
- Rockwell Formation (MDr)
- Burgoon Sandstone (Mb)
- Mauch Chunk Formation (Mmc)
- Allegheny Formation (Pa)
- Pottsville Formation (Pp)

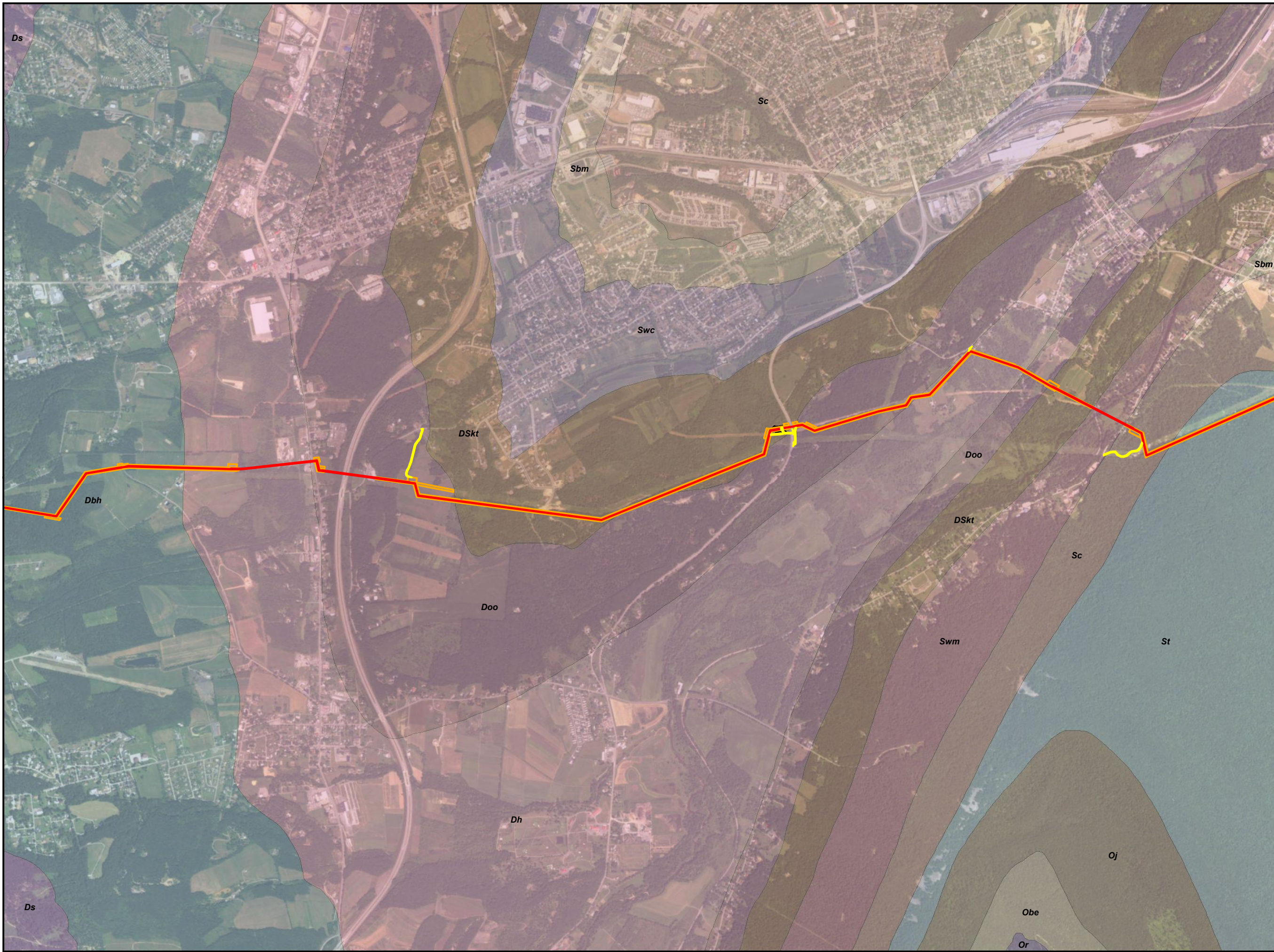
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GEOLOGIC UNIT MAP
ATTACHMENT 2-1
PENNSYLVANIA PIPELINE PROJECT
NOVEMBER 12, 2016 ALIGNMENT
SUNOCO LOGISTICS, L.P.
BLAIR COUNTY,
PENNSYLVANIA



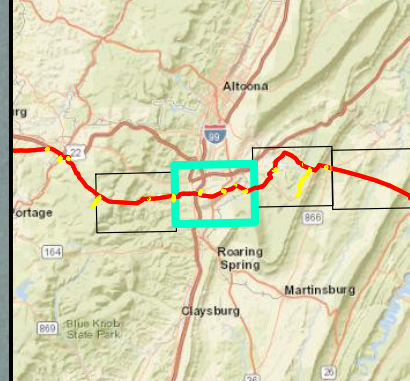
Notes:
Aerial photograph provided by ESRI's
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Legend

- Access Road
- Alignment Centerline
- Limit of Disturbance
- Block Valve/Station
- Keyser and Tonoloway Formations Undivided (DSkt)
- Brallier and Harrel Formations Undivided (Dbh)
- Hamilton Group (Dh)
- Onondaga and Old Port Formations undivided (Doo)
- Scherr Formation (Ds)
- Bald Eagle Formation (Obe)
- Juniata Formation (Oj)
- Reedsville Formation (Or)
- Bloomsburg and Mifflintown Formations undivided (Sbm)
- Clinton Group (Sc)
- Tuscarora Formation (St)
- Wills Creek Formation (Swc)
- Wills Creek Formation through Mifflintown Formation undivided (Swm)

Sheet Identifier

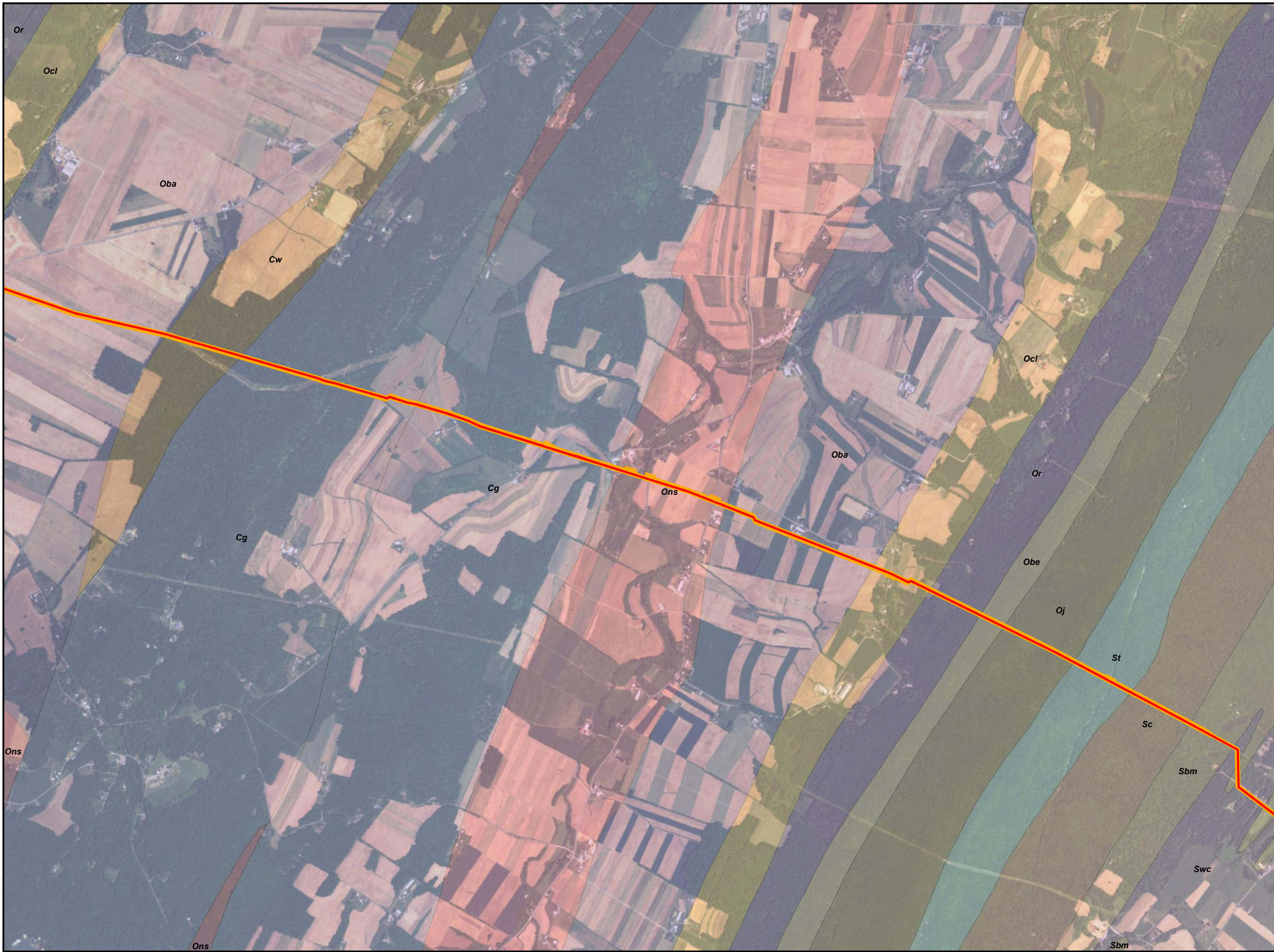


GEOLOGIC UNIT MAP
ATTACHMENT 2-2
PENNSYLVANIA PIPELINE PROJECT
NOVEMBER 12, 2016 ALIGNMENT
SUNOCO LOGISTICS, L.P.
BLAIR COUNTY,
PENNSYLVANIA



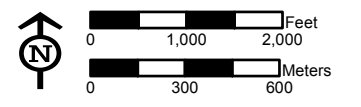
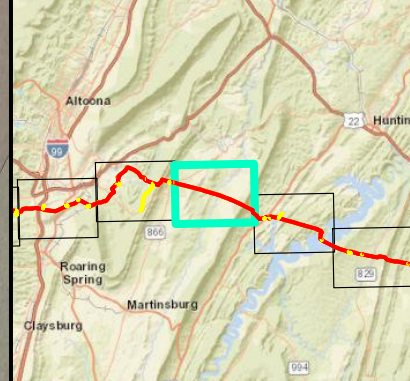
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- Legend**
- Access Road
 - Alignment Centerline
 - Limit of Disturbance
 - Block Valve/Station
 - Gatesburg Formation (Cg)
 - Warrior Formation (Cw)
 - Bellefonte and Axemann Formations undivided (Oba)
 - Bald Eagle Formation (Obe)
 - Coburn Formation through Loysburg Formation undivided (Ocl)
 - Juniata Formation (Oj)
 - Nittany and Stonehenge/Larke Formations undivided (Ons)
 - Reedsville Formation (Or)
 - Bloomsburg and Mifflintown Formations undivided (Sbm)
 - Clinton Group (Sc)
 - Tuscarora Formation (St)
 - Wills Creek Formation (Swc)

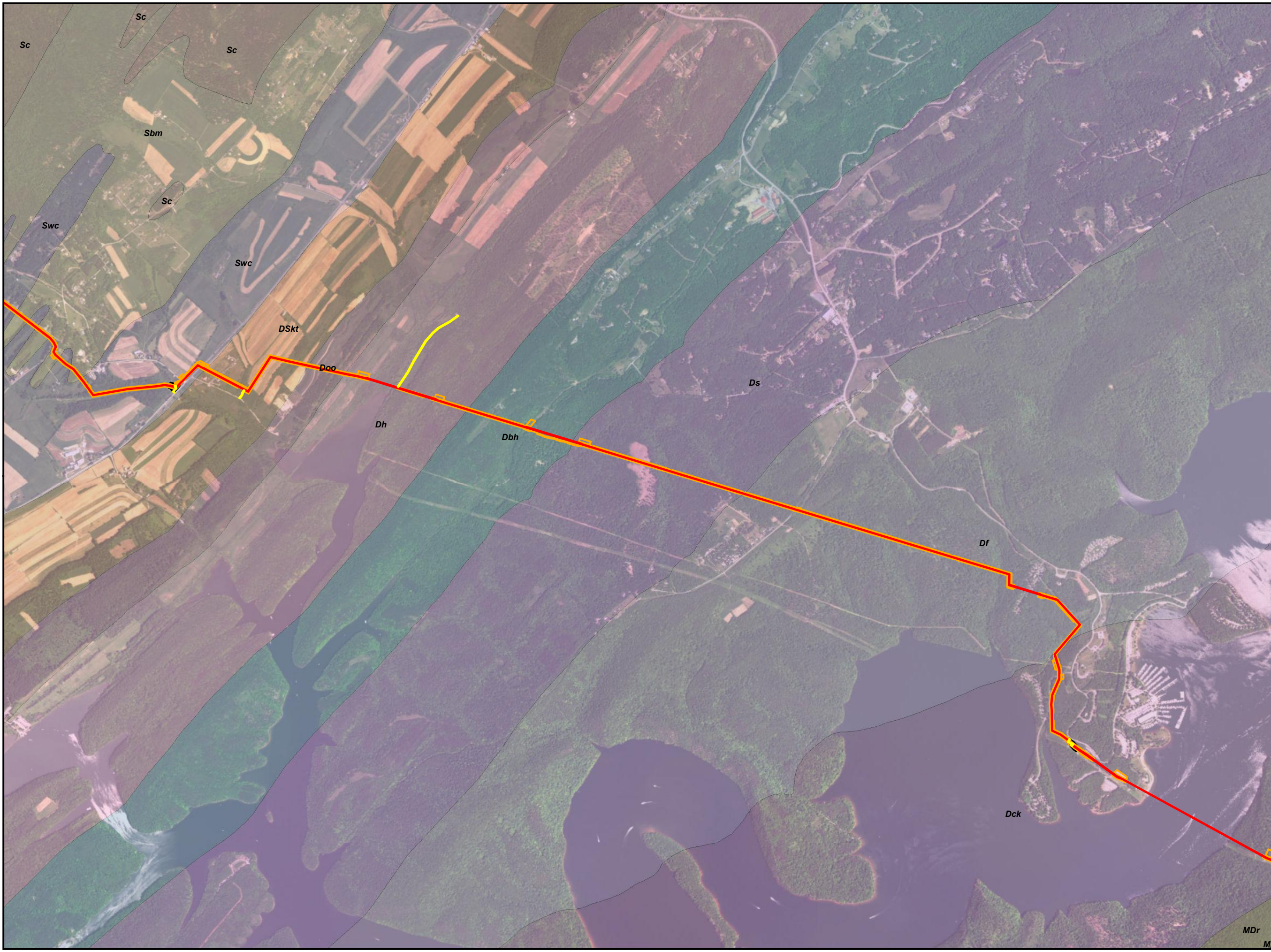
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**GEOLOGIC UNIT MAP
ATTACHMENT 2-4
PENNSYLVANIA PIPELINE PROJECT
NOVEMBER 12, 2016 ALIGNMENT
SUNOCO LOGISTICS, L.P.
BLAIR, HUNTINGDON COUNTY,
PENNSYLVANIA**



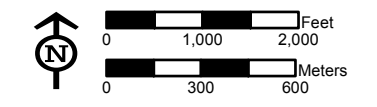
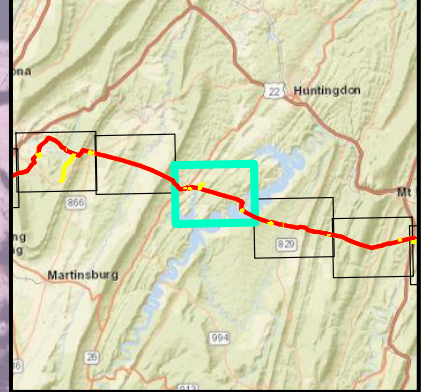
Notes:
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Legend

- Access Road
- Alignment Centerline
- Limit of Disturbance
- Block Valve/Station
- Keyser and Tonoloway Formations Undivided (DSkt)
- Brallier and Harrel Formations Undivided (Dbh)
- Catskill Formation (Dck)
- Foreknobs Formations (Df)
- Hamilton Group (Dh)
- Onondaga and Old Port Formations undivided (Doo)
- Scherr Formation (Ds)
- Rockwell Formation (MDr)
- Pocono Formation (Mp)
- Bloomsburg and Mifflintown Formations undivided (Sbm)
- Clinton Group (Sc)
- Wills Creek Formation (Swc)

Sheet Identifier

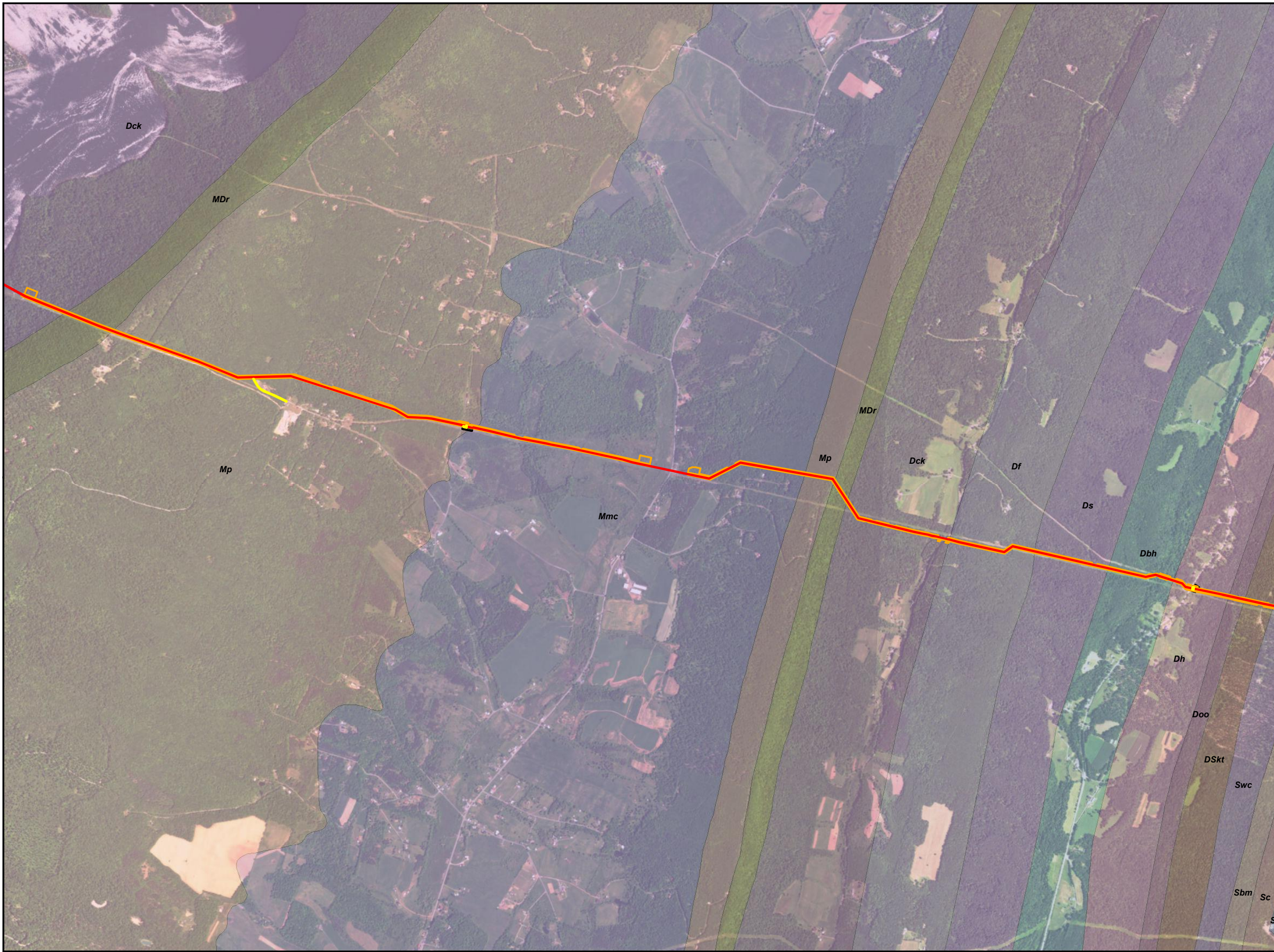


GEOLOGIC UNIT MAP
ATTACHMENT 2-5
PENNSYLVANIA PIPELINE PROJECT
NOVEMBER 12, 2016 ALIGNMENT
SUNOCO LOGISTICS, L.P.
HUNTINGDON COUNTY,
PENNSYLVANIA



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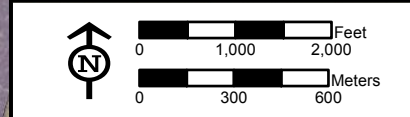
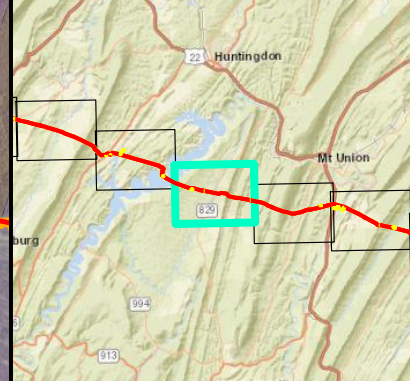
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Legend

- Access Road
- Alignment Centerline
- Limit of Disturbance
- Block Valve/Station
- Keyser and Tonoloway Formations Undevided (DSkt)
- Brallier and Harrel Formations Undevided (Dbh)
- Catskill Formation (Dck)
- Foreknobs Formations (Df)
- Hamilton Group (Dh)
- Onondaga and Old Port Formations undevided (Doo)
- Scherr Formation (Ds)
- Rockwell Formation (MDr)
- Mauch Chunk Formation (Mmc)
- Pocono Formation (Mp)
- Bloomsburg and Mifflintown Formations undivided (Sbm)
- Clinton Group (Sc)
- Tuscarora Formation (St)
- Wills Creek Formation (Swc)

Sheet Identifier

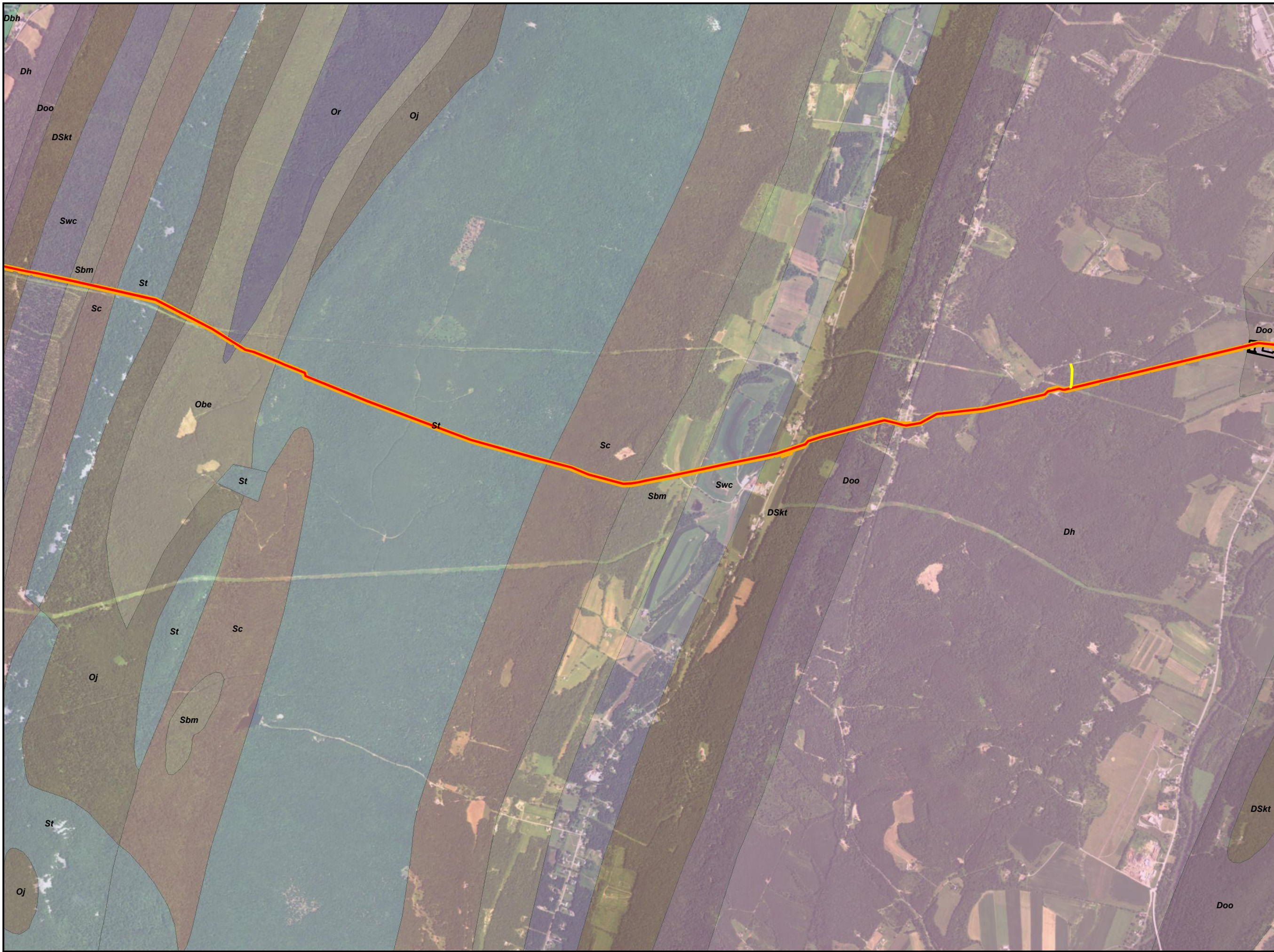


GEOLOGIC UNIT MAP
ATTACHMENT 2-6
PENNSYLVANIA PIPELINE PROJECT
NOVEMBER 12, 2016 ALIGNMENT
SUNOCO LOGISTICS, L.P.
HUNTINGDON COUNTY,
PENNSYLVANIA



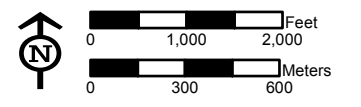
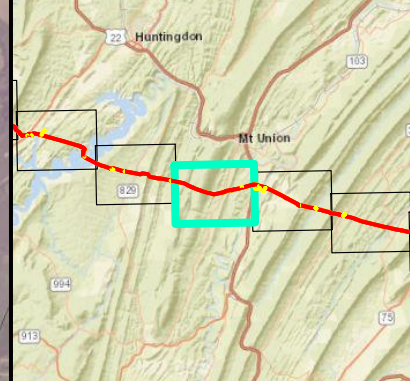
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- Legend**
- Access Road
 - Alignment Centerline
 - Limit of Disturbance
 - Block Valve/Station
 - Keyser and Tonoloway Formations Undivided (DSkt)
 - Brallier and Harrel Formations Undivided (Dbh)
 - Hamilton Group (Dh)
 - Onondaga and Old Port Formations undivided (Doo)
 - Bald Eagle Formation (Obe)
 - Juniata Formation (Oj)
 - Reedsville Formation (Or)
 - Bloomsburg and Mifflintown Formations undivided (Sbm)
 - Clinton Group (Sc)
 - Tuscarora Formation (St)
 - Wills Creek Formation (Swc)

Sheet Identifier

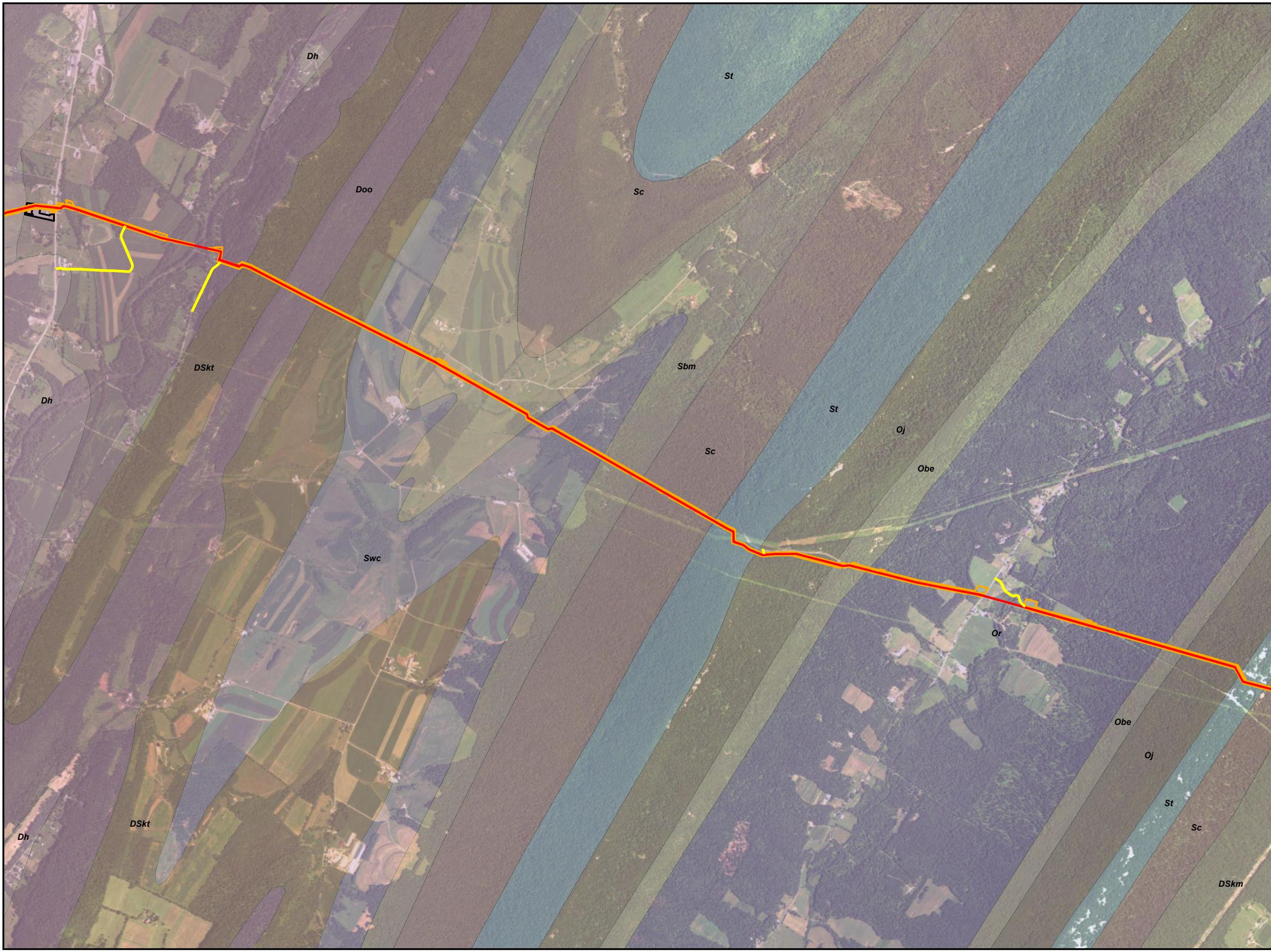


GEOLOGIC UNIT MAP
ATTACHMENT 2-7
PENNSYLVANIA PIPELINE PROJECT
NOVEMBER 12, 2016 ALIGNMENT
SUNOCO LOGISTICS, L.P.
HUNTINGDON COUNTY,
PENNSYLVANIA

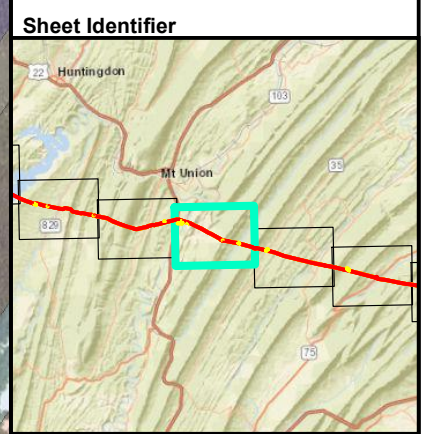


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- Legend**
- Access Road
 - Alignment Centerline
 - Limit of Disturbance
 - Block Valve/Station
 - Keyser Formation through Mifflintown Formation undivided (DSkm)
 - Keyser and Tonoloway Formations Undivided (DSkt)
 - Hamilton Group (Dh)
 - Onondaga and Old Port Formations undivided (Doo)
 - Bald Eagle Formation (Obe)
 - Juniata Formation (Oj)
 - Reedsville Formation (Or)
 - Bloomsburg and Mifflintown Formations undivided (Sbm)
 - Clinton Group (Sc)
 - Tuscarora Formation (St)
 - Wills Creek Formation (Swc)

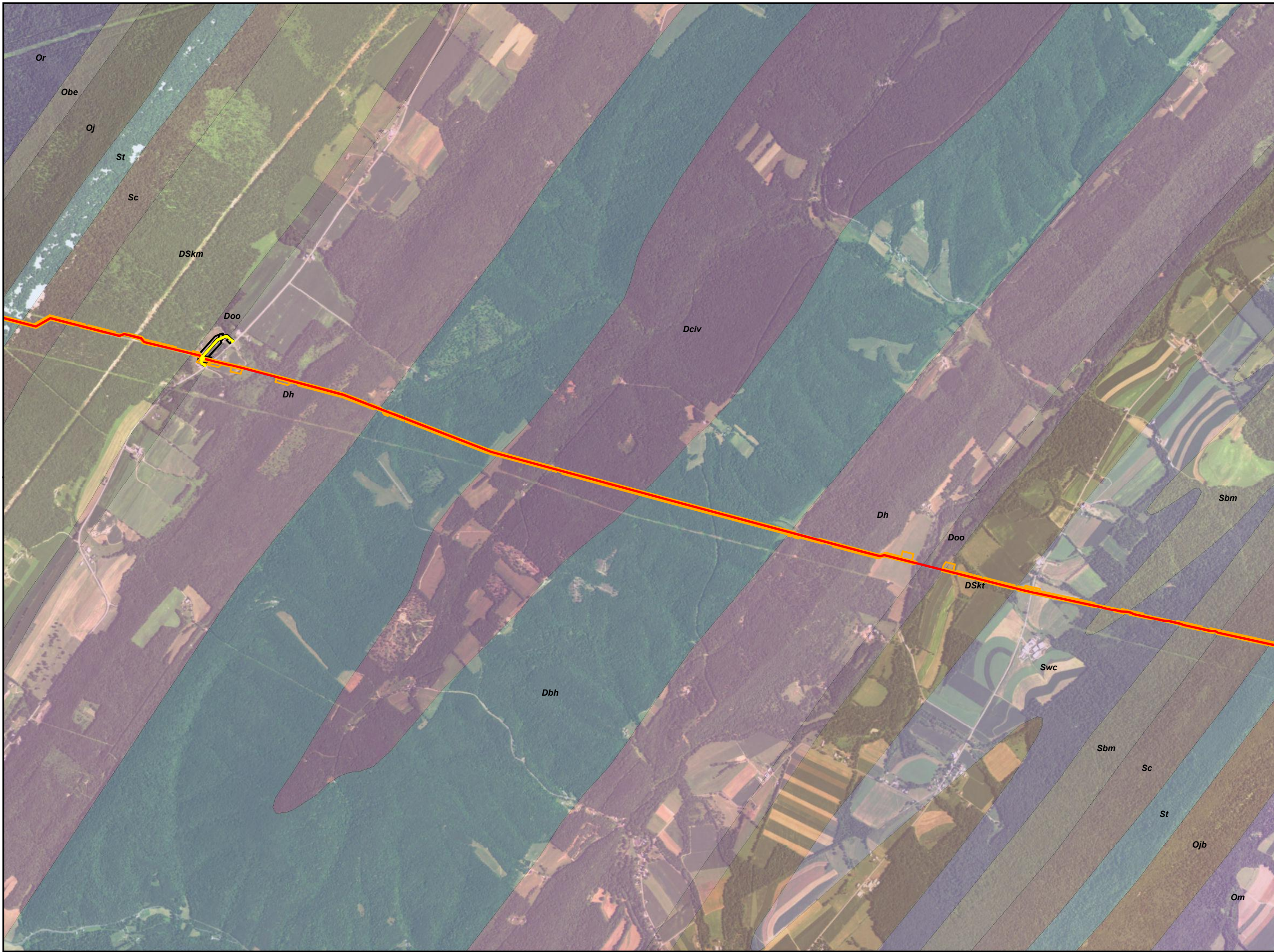


GEOLOGIC UNIT MAP
ATTACHMENT 2-8
PENNSYLVANIA PIPELINE PROJECT
NOVEMBER 12, 2016 ALIGNMENT
SUNOCO LOGISTICS, L.P.
HUNTINGDON COUNTY,
PENNSYLVANIA

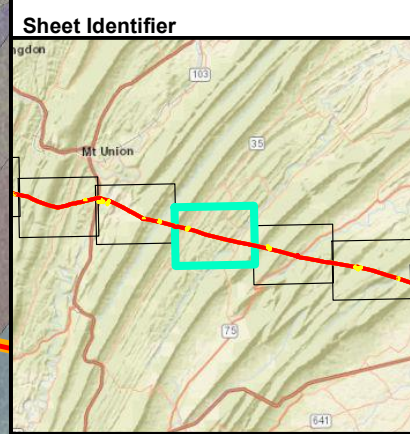


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- ### Legend
- Access Road
 - Alignment Centerline
 - Limit of Disturbance
 - Block Valve/Station
 - Keyser Formation through Mifflintown Formation undivided (DSkm)
 - Keyser and Tonoloway Formations Undivided (DSkt)
 - Brallier and Harrel Formations Undivided (Dbh)
 - Irish Valley Member of Catskill Formation (Dciv)
 - Hamilton Group (Dh)
 - Onondaga and Old Port Formations undivided (Doo)
 - Bald Eagle Formation (Obe)
 - Juniata Formation (Oj)
 - Juniata and Bald Eagle Formations undivided (Ojb)
 - Martinsburg Formation (Om)
 - Reedsville Formation (Or)
 - Bloomsburg and Mifflintown Formations undivided (Sbm)
 - Clinton Group (Sc)
 - Tuscarora Formation (St)
 - Wills Creek Formation (Swc)

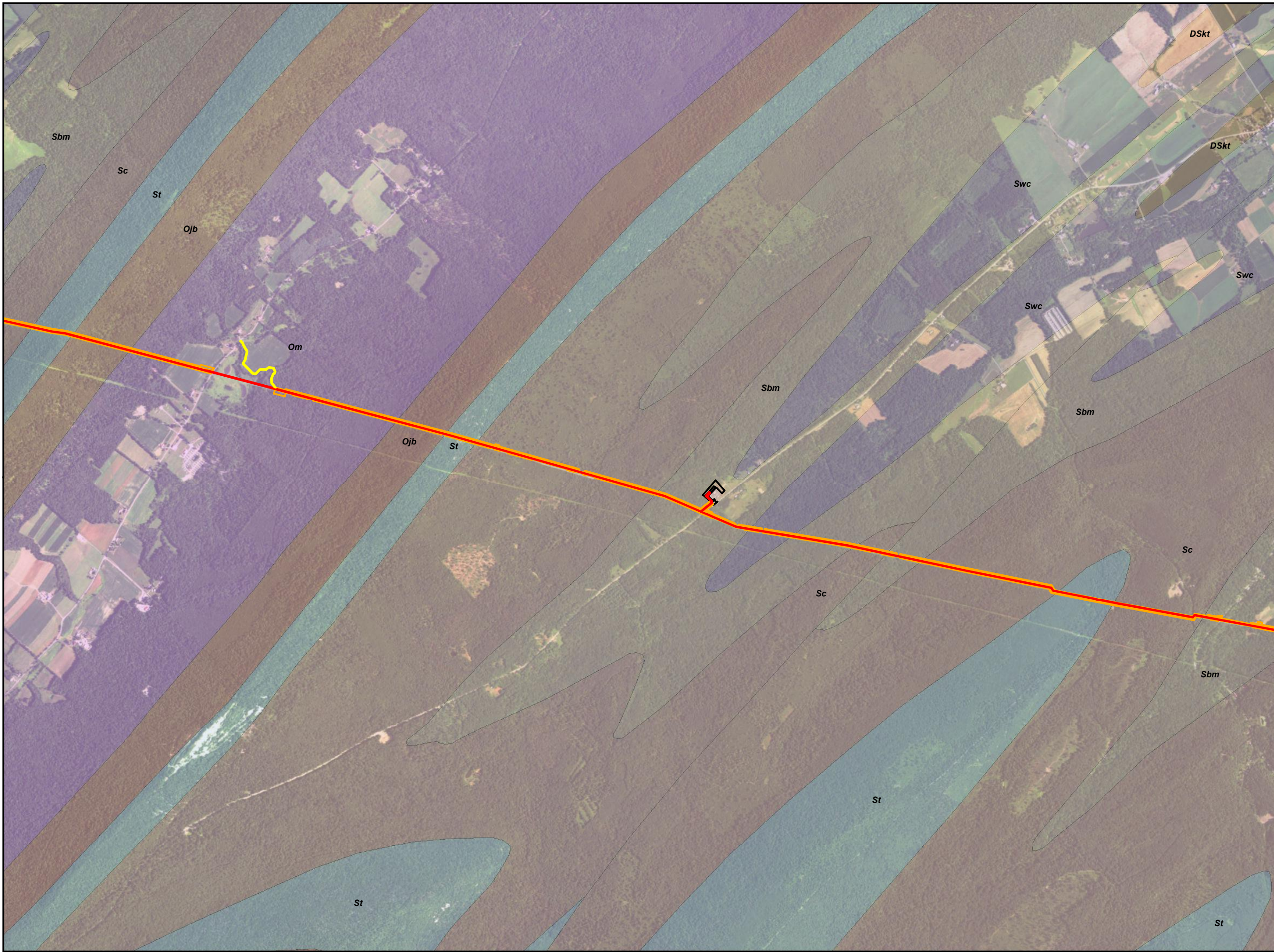


GEOLOGIC UNIT MAP
ATTACHMENT 2-9
PENNSYLVANIA PIPELINE PROJECT
NOVEMBER 12, 2016 ALIGNMENT
SUNOCO LOGISTICS, L.P.
HUNTINGDON, JUNIATA COUNTY,
PENNSYLVANIA

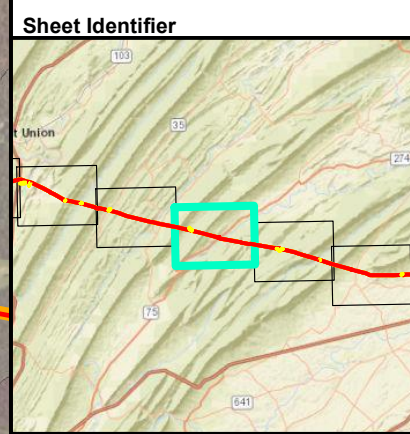


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- Legend**
- Access Road
 - Alignment Centerline
 - Limit of Disturbance
 - Block Valve/Station
 - Keyser and Tonoloway Formations Undivided (DSkt)
 - Juniata and Bald Eagle Formations undivided (Ojb)
 - Martinsburg Formation (Om)
 - Bloomsburg and Mifflintown Formations undivided (Sbm)
 - Clinton Group (Sc)
 - Tuscarora Formation (St)
 - Wills Creek Formation (Swc)

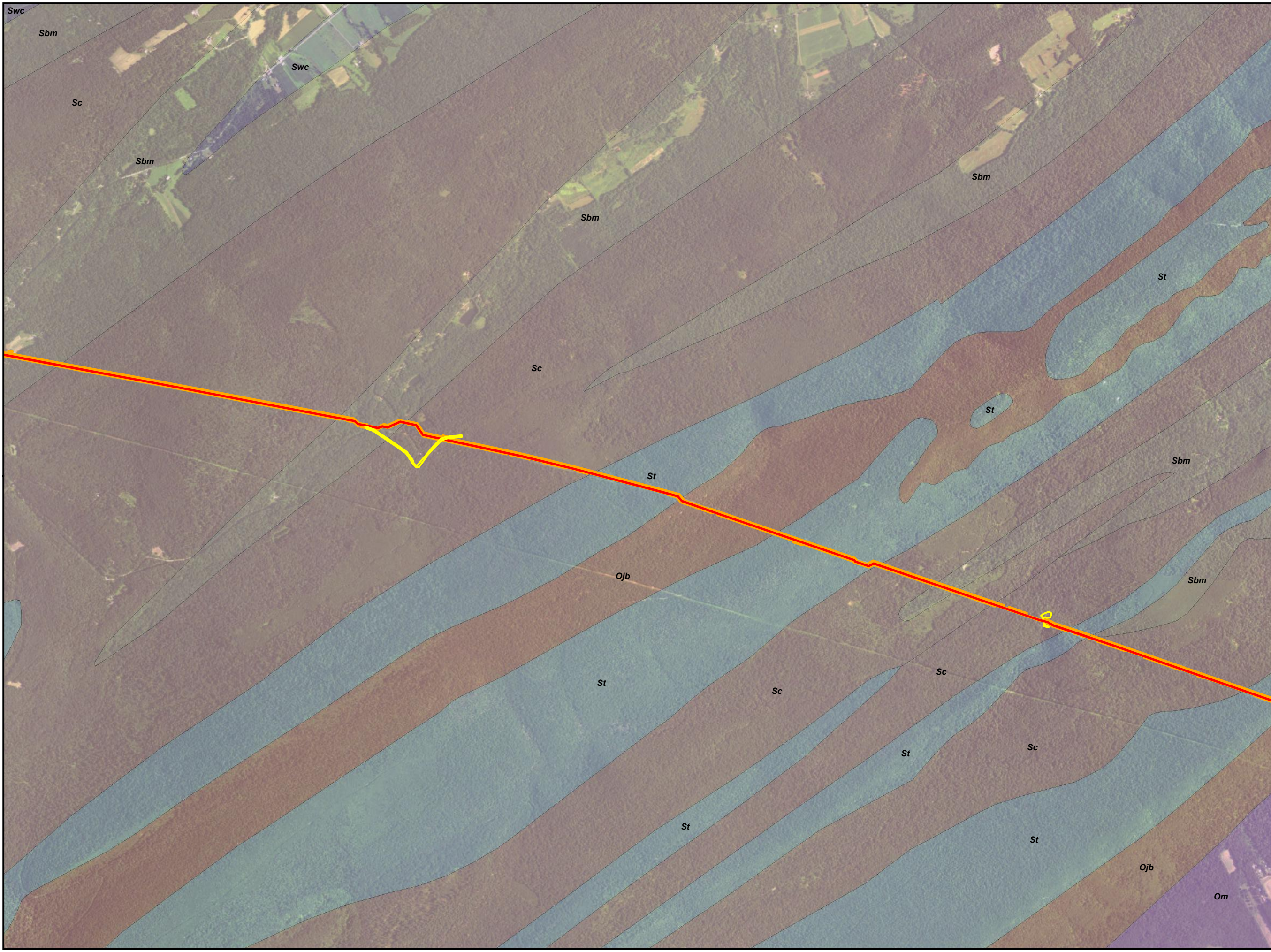


GEOLOGIC UNIT MAP
ATTACHMENT 2-10
PENNSYLVANIA PIPELINE PROJECT
NOVEMBER 12, 2016 ALIGNMENT
SUNOCO LOGISTICS, L.P.
JUNIATA, PERRY COUNTY,
PENNSYLVANIA

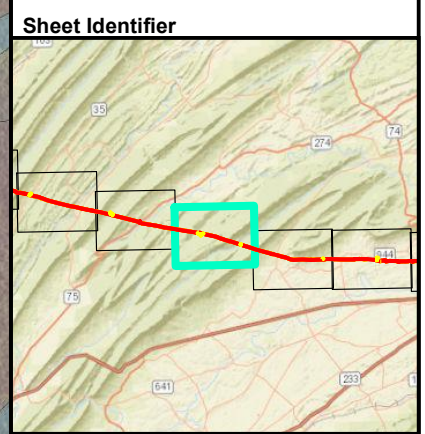


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- Legend**
- Access Road
 - Alignment Centerline
 - Limit of Disturbance
 - Block Valve/Station
 - Juniata and Bald Eagle Formations undivided (Ojb)
 - Martinsburg Formation (Om)
 - Bloomsburg and Mifflintown Formations undivided (Sbm)
 - Clinton Group (Sc)
 - Tuscarora Formation (St)
 - Wills Creek Formation (Swc)



GEOLOGIC UNIT MAP
ATTACHMENT 2-11
PENNSYLVANIA PIPELINE PROJECT
NOVEMBER 12, 2016 ALIGNMENT
SUNOCO LOGISTICS, L.P.
PERRY COUNTY,
PENNSYLVANIA

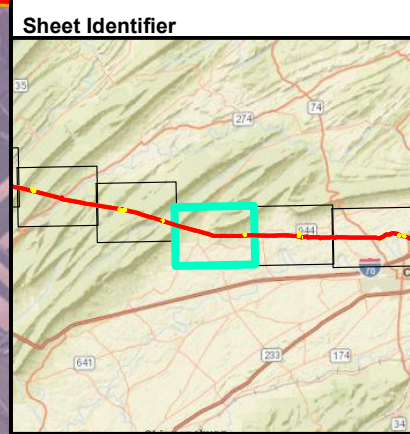


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- Legend**
- Access Road
 - Alignment Centerline
 - Limit of Disturbance
 - Block Valve/Station
 - Juniata and Bald Eagle Formations undivided (Ojb)
 - Martinsburg Formation (Om)
 - Graywacke and shale of Martinsburg Formation (Omgs)
 - Bloomsburg and Mifflintown Formations undivided (Sbm)
 - Clinton Group (Sc)
 - Tuscarora Formation (St)



GEOLOGIC UNIT MAP
ATTACHMENT 2-12
PENNSYLVANIA PIPELINE PROJECT
NOVEMBER 12, 2016 ALIGNMENT
SUNOCO LOGISTICS, L.P.
CUMBERLAND COUNTY,
PENNSYLVANIA

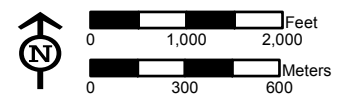
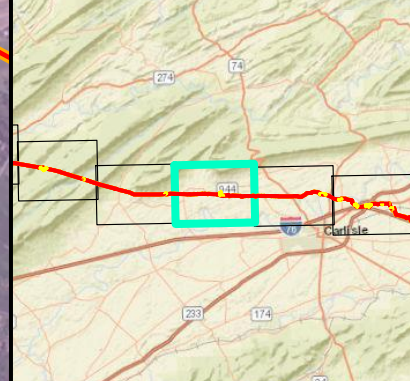


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- Legend**
- Access Road
 - Alignment Centerline
 - Limit of Disturbance
 - Block Valve/Station
 - Juniata and Bald Eagle Formations undivided (Ojb)
 - Martinsburg Formation (Om)
 - Graywacke and shale of Martinsburg Formation (Omgs)
 - Clinton Group (Sc)
 - Tuscarora Formation (St)

Sheet Identifier



GEOLOGIC UNIT MAP
ATTACHMENT 2-13
PENNSYLVANIA PIPELINE PROJECT
NOVEMBER 12, 2016 ALIGNMENT
SUNOCO LOGISTICS, L.P.
CUMBERLAND COUNTY,
PENNSYLVANIA

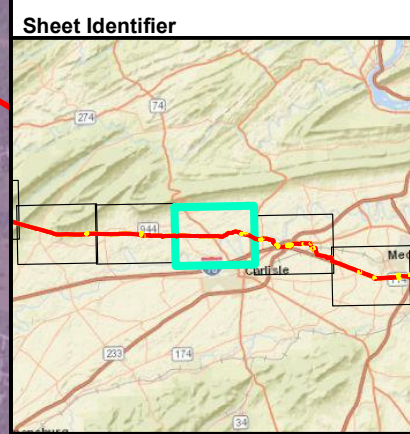


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- Legend**
- Access Road
 - Alignment Centerline
 - Limit of Disturbance
 - Block Valve/Station
 - Chambersburg Formation (Oc)
 - Martinsburg Formation (Om)
 - Graywacke and shale of Martinsburg Formation (Omgs)
 - Pinesburg Station Formation (Ops)
 - Rockdale Run Formation (Orr)
 - St. Paul Group (Osp)

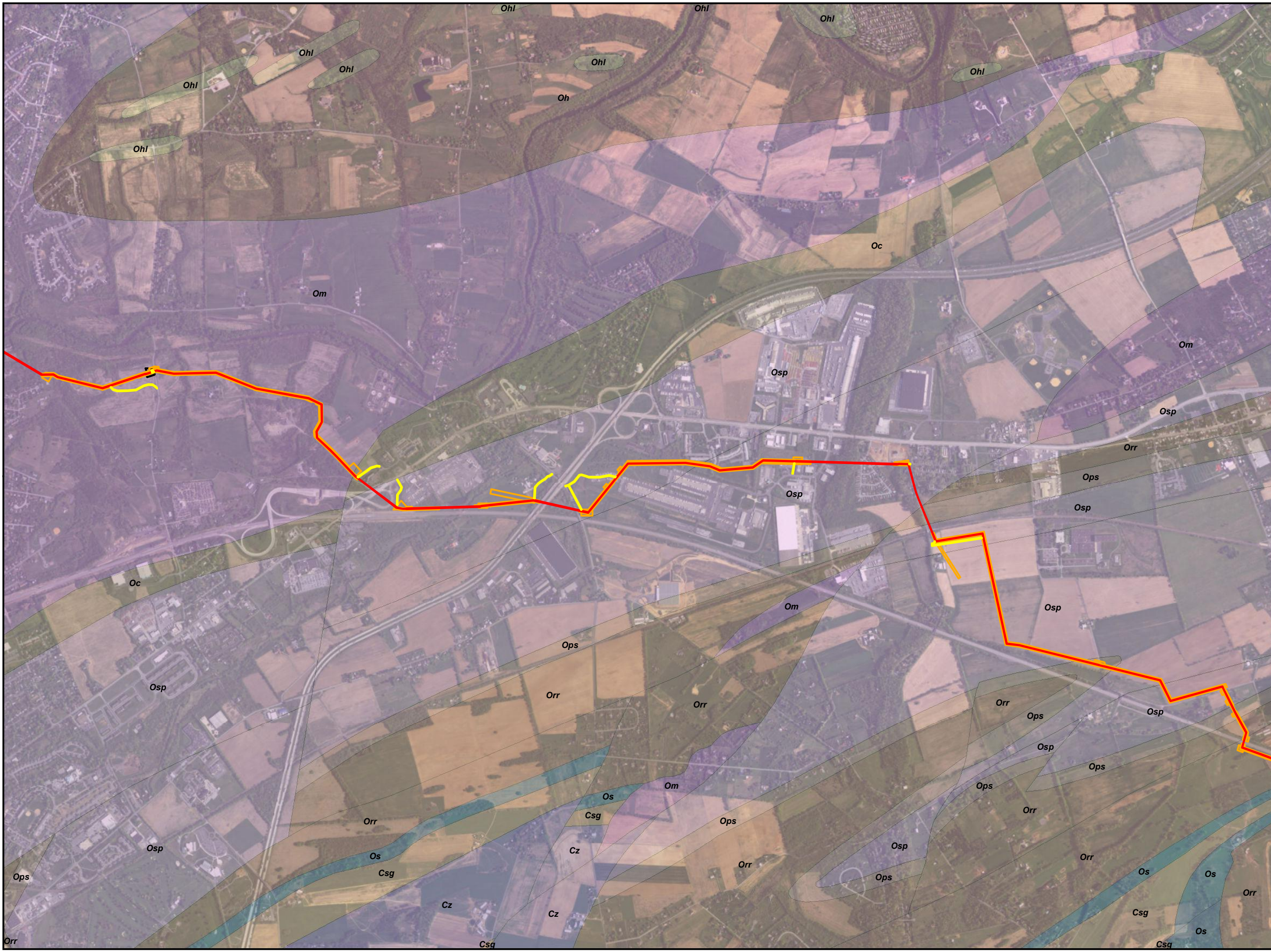


GEOLOGIC UNIT MAP
ATTACHMENT 2-14
PENNSYLVANIA PIPELINE PROJECT
NOVEMBER 12, 2016 ALIGNMENT
SUNOCO LOGISTICS, L.P.
CUMBERLAND COUNTY,
PENNSYLVANIA

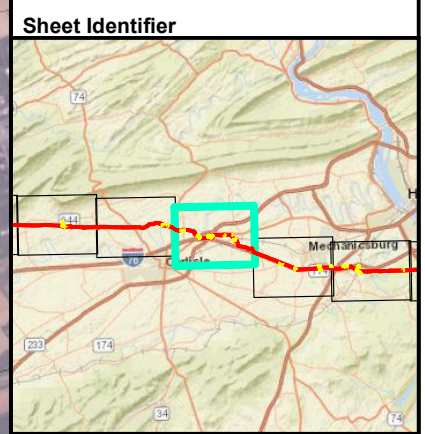


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- ### Legend
- Access Road
 - Alignment Centerline
 - Limit of Disturbance
 - Block Valve/Station
 - Shadygrove Formation (Csg)
 - Zullinger Formation (Cz)
 - Chambersburg Formation (Oc)
 - Hamburg sequence rocks (Oh)
 - Limestone of Hamburg Sequence (Ohl)
 - Martinsburg Formation (Om)
 - Pinesburg Station Formation (Ops)
 - Rockdale Run Formation (Orr)
 - Stonehenge Formation (Os)
 - St. Paul Group (Osp)



GEOLOGIC UNIT MAP
ATTACHMENT 2-15
PENNSYLVANIA PIPELINE PROJECT
NOVEMBER 12, 2016 ALIGNMENT
SUNOCO LOGISTICS, L.P.
CUMBERLAND COUNTY,
PENNSYLVANIA

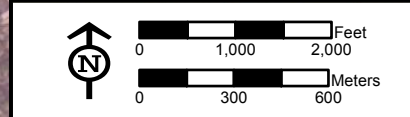
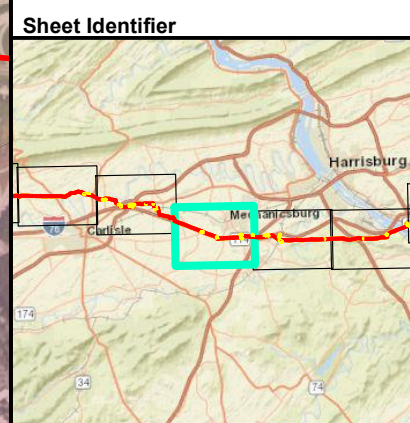


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- Legend**
- Access Road
 - Alignment Centerline
 - Limit of Disturbance
 - Block Valve/Station
 - Elsbrook Formation (Ce)
 - Shadygrove Formation (Csg)
 - Zullinger Formation (Cz)
 - Hamburg sequence rocks (Oh)
 - Pinesburg Station Formation (Ops)
 - Rockdale Run Formation (Orr)
 - Stonehenge Formation (Os)
 - St. Paul Group (Osp)

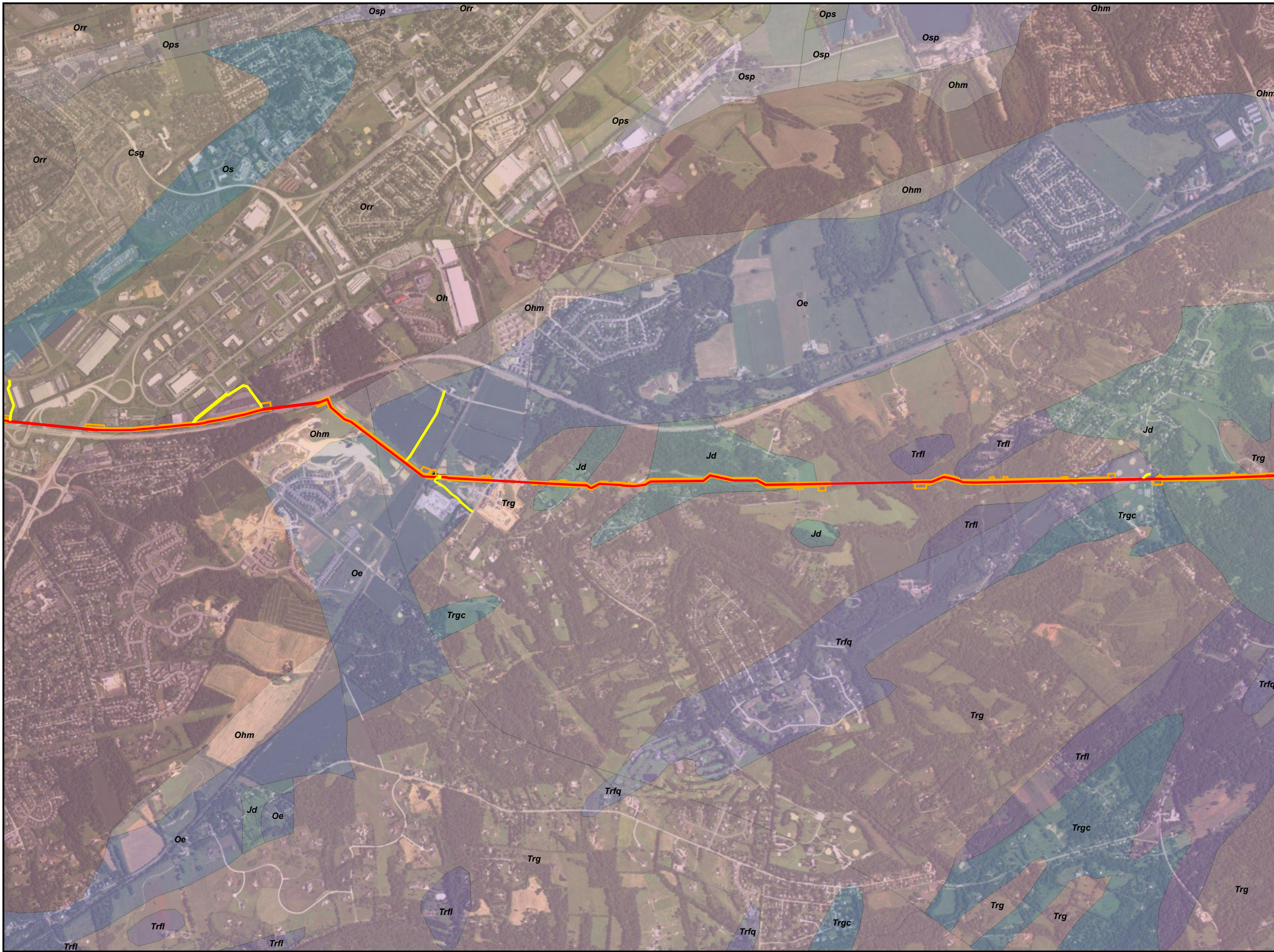


GEOLOGIC UNIT MAP
ATTACHMENT 2-16
PENNSYLVANIA PIPELINE PROJECT
NOVEMBER 12, 2016 ALIGNMENT
SUNOCO LOGISTICS, L.P.
CUMBERLAND COUNTY,
PENNSYLVANIA



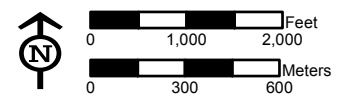
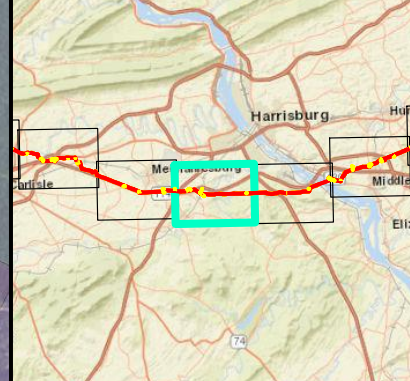
Notes:
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- ### Legend
- Access Road
 - Alignment Centerline
 - Limit of Disturbance
 - Block Valve/Station
 - Shadygrove Formation (Csg)
 - Diabase (Jd)
 - Epler Formation (Oe)
 - Hamburg sequence rocks (Oh)
 - Hershey and Myerstown Formations undivided (Ohm)
 - Pinesburg Station Formation (Ops)
 - Rockdale Run Formation (Orr)
 - Stonehenge Formation (Os)
 - St. Paul Group (Osp)
 - Limestone fanglomerate (Trfl)
 - Quartz fanglomerate (Trfq)
 - Gettysburg Formation (Trg)
 - Gettysburg conglomerate (Trgc)

Sheet Identifier

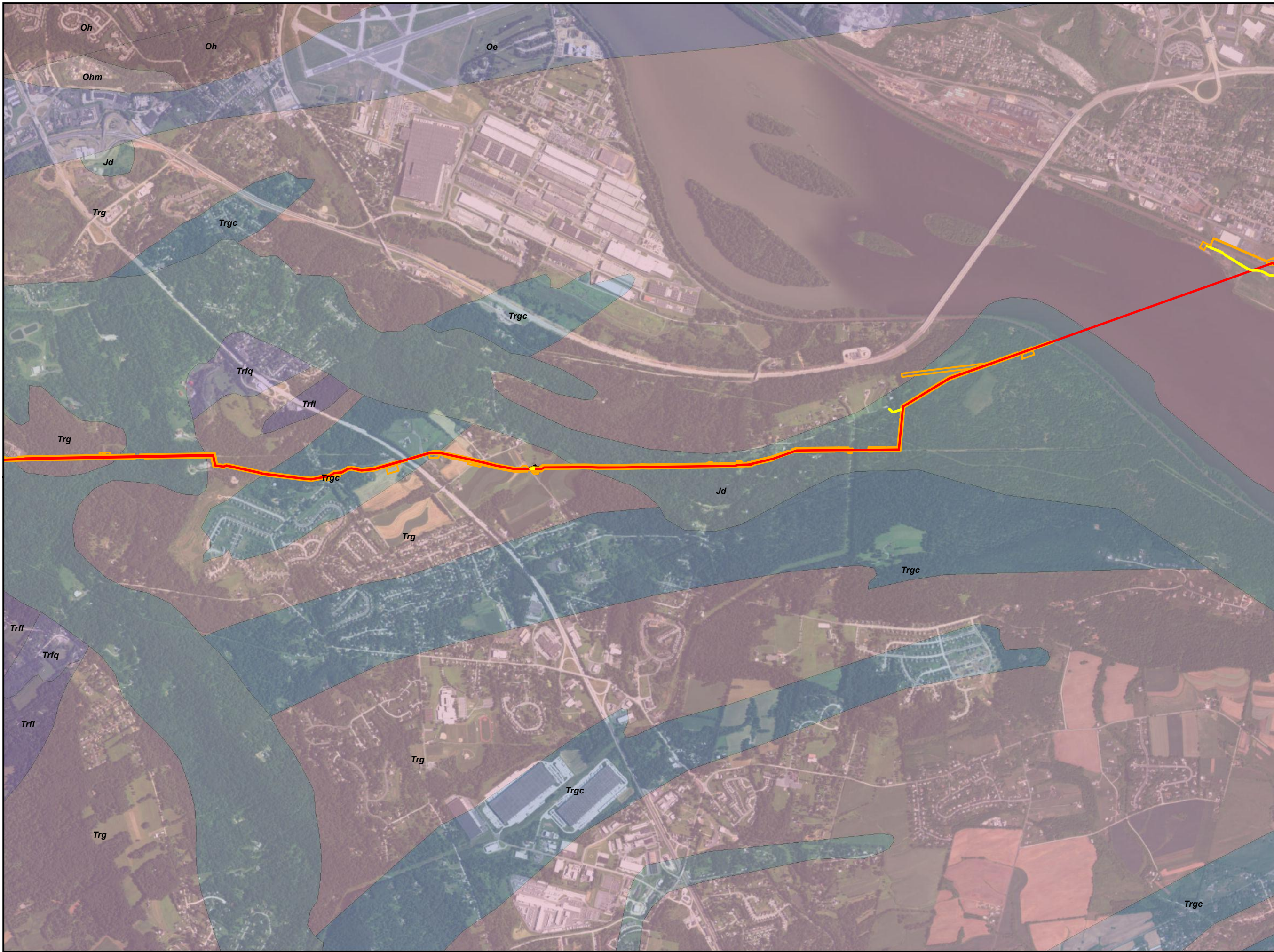


GEOLOGIC UNIT MAP
ATTACHMENT 2-17
PENNSYLVANIA PIPELINE PROJECT
NOVEMBER 12, 2016 ALIGNMENT
SUNOCO LOGISTICS, L.P.
CUMBERLAND, YORK COUNTY,
PENNSYLVANIA

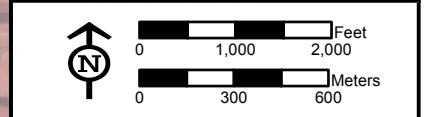
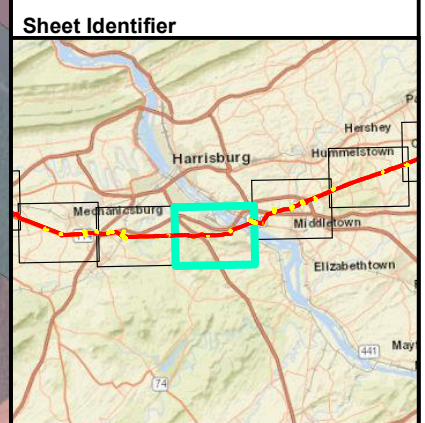


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- Legend**
- Access Road
 - Alignment Centerline
 - Limit of Disturbance
 - Block Valve/Station
 - Diabase (Jd)
 - Epler Formation (Oe)
 - Hamburg sequence rocks (Oh)
 - Hershey and Myerstown Formations undivided (Ohm)
 - Limestone fanglomerate (Trfl)
 - Quartz fanglomerate (Trfq)
 - Gettysburg Formation (Trg)
 - Gettysburg conglomerate (Trgc)



GEOLOGIC UNIT MAP
ATTACHMENT 2-18
PENNSYLVANIA PIPELINE PROJECT
NOVEMBER 12, 2016 ALIGNMENT
SUNOCO LOGISTICS, L.P.
YORK, DAUPHIN COUNTY,
PENNSYLVANIA

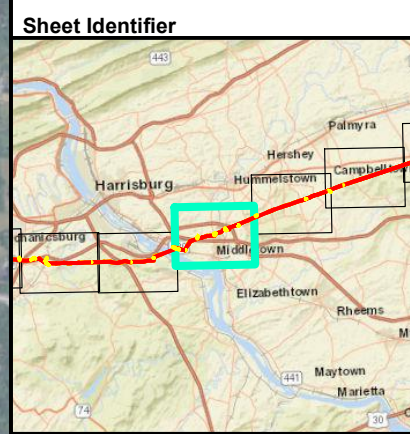


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- Legend**
- Access Road
 - Alignment Centerline
 - Limit of Disturbance
 - Block Valve/Station
 - Diabase (Jd)
 - Annville Formation (Oan)
 - Epler Formation (Oe)
 - Hamburg sequence rocks (Oh)
 - Hershey and Myerstown Formations undivided (Ohm)
 - Ontelaunee Formation (Oo)
 - St. Paul Group (Osp)
 - Gettysburg Formation (Trg)
 - Gettysburg conglomerate (Trgc)



GEOLOGIC UNIT MAP
ATTACHMENT 2-19
PENNSYLVANIA PIPELINE PROJECT
NOVEMBER 12, 2016 ALIGNMENT
SUNOCO LOGISTICS, L.P.
DAUPHIN COUNTY,
PENNSYLVANIA

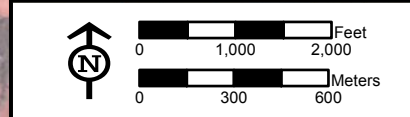
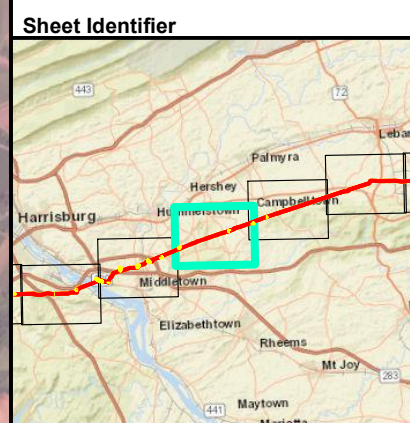


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- ### Legend
- Access Road
 - Alignment Centerline
 - Limit of Disturbance
 - Block Valve/Station
 - Buffalo Springs Formation (Cbs)
 - Diabase (Jd)
 - Epler Formation (Oe)
 - Ontelaunee Formation (Oo)
 - Stonehenge Formation (Os)
 - Limestone fanglomerate (Trfl)
 - Gettysburg Formation (Trg)
 - Gettysburg conglomerate (Trgc)
 - Hammer Creek Formation (Trh)
 - Hammer Creek conglomerate (Trhc)



GEOLOGIC UNIT MAP
ATTACHMENT 2-20
PENNSYLVANIA PIPELINE PROJECT
NOVEMBER 12, 2016 ALIGNMENT
SUNOCO LOGISTICS, L.P.
DAUPHIN COUNTY,
PENNSYLVANIA

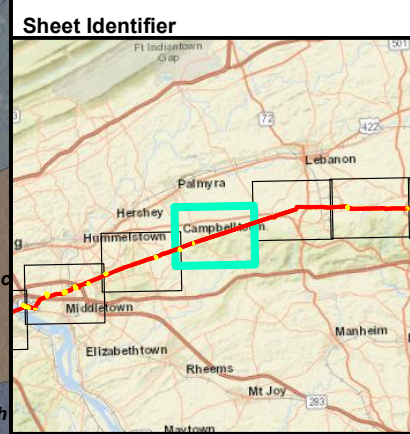


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- ### Legend
- Access Road
 - Alignment Centerline
 - Limit of Disturbance
 - Block Valve/Station
 - Buffalo Springs Formation (Cbs)
 - Millbach and Schaefferstown Formations undivided (Cms)
 - Richland Formation (Cr)
 - Snitz Creek Formation (Csc)
 - Diabase (Jd)
 - Hamburg sequence rocks (Oh)
 - Stonehenge Formation (Os)
 - Gettysburg Formation (Trg)
 - Hammer Creek Formation (Trh)
 - Hammer Creek conglomerate (Trhc)



GEOLOGIC UNIT MAP
ATTACHMENT 2-21
PENNSYLVANIA PIPELINE PROJECT
NOVEMBER 12, 2016 ALIGNMENT
SUNOCO LOGISTICS, L.P.
LEBANON COUNTY,
PENNSYLVANIA

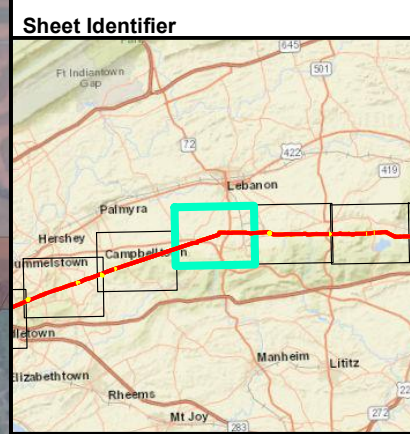


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- ### Legend
- Access Road
 - Alignment Centerline
 - Limit of Disturbance
 - Block Valve/Station
 - Buffalo Springs Formation (Cbs)
 - Millbach and Schaefferstown Formations undivided (Cms)
 - Richland Formation (Cr)
 - Snitz Creek Formation (Csc)
 - Diabase (Jd)
 - Epler Formation (Oe)
 - Hamburg sequence rocks (Oh)
 - Rickenback Formation (Ori)
 - Stonehenge Formation (Os)
 - Hammer Creek Formation (Trh)
 - Hammer Creek conglomerate (Trhc)

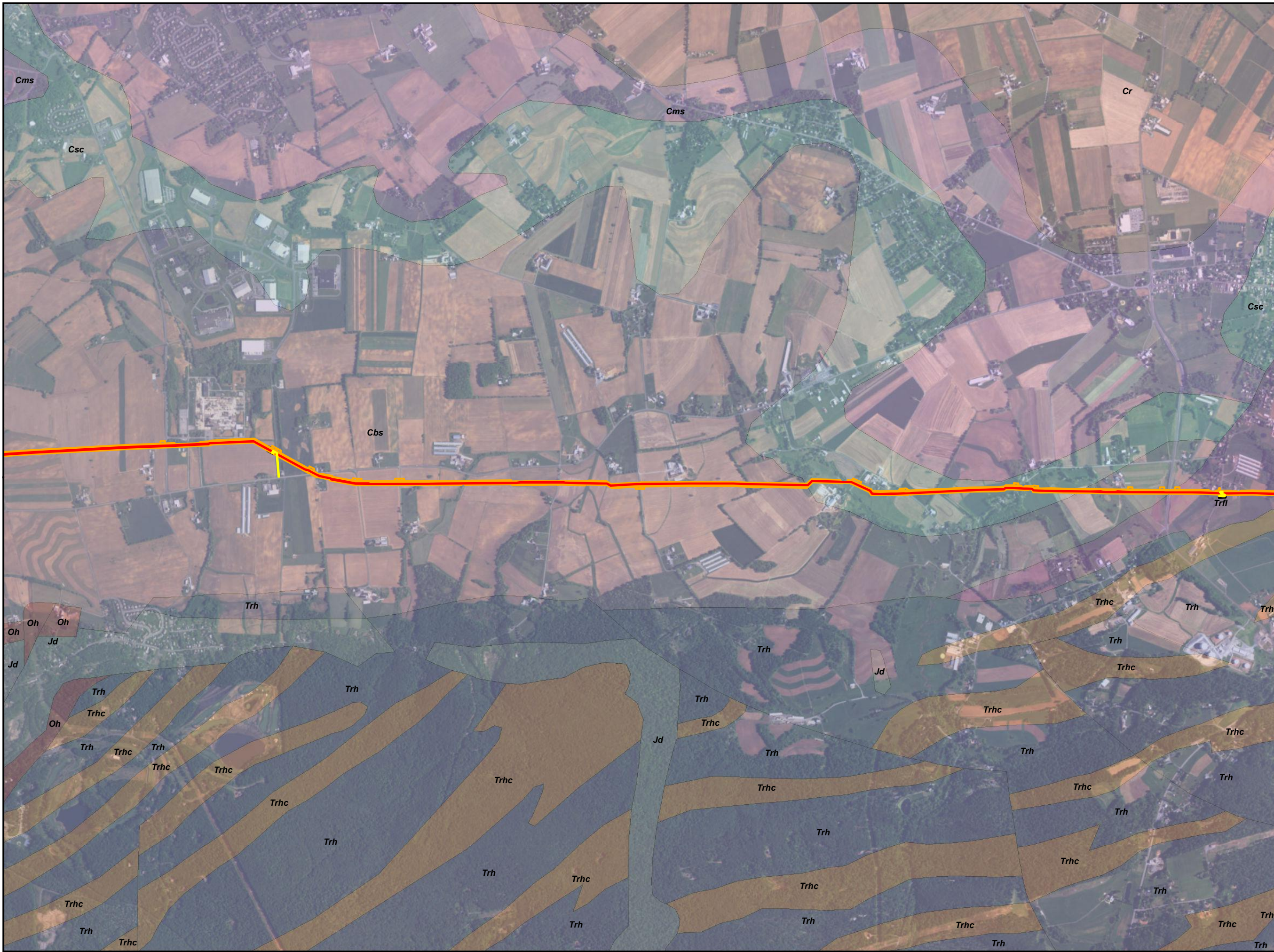


GEOLOGIC UNIT MAP
ATTACHMENT 2-22
PENNSYLVANIA PIPELINE PROJECT
NOVEMBER 12, 2016 ALIGNMENT
SUNOCO LOGISTICS, L.P.
LEBANON COUNTY,
PENNSYLVANIA



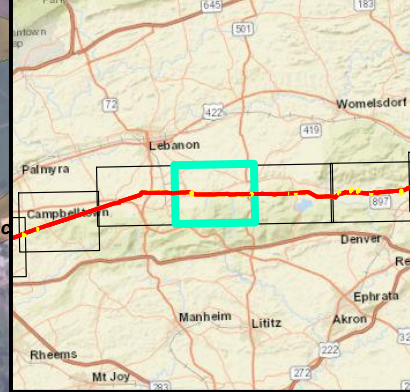
Notes:
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- ### Legend
- Access Road
 - Alignment Centerline
 - Limit of Disturbance
 - Block Valve/Station
 - Buffalo Springs Formation (Cbs)
 - Millbach and Schaefferstown Formations undivided (Cms)
 - Richland Formation (Cr)
 - Snitz Creek Formation (Csc)
 - Diabase (Jd)
 - Hamburg sequence rocks (Oh)
 - Limestone fanglomerate (Trfl)
 - Hammer Creek Formation (Trh)
 - Hammer Creek conglomerate (Trhc)

Sheet Identifier

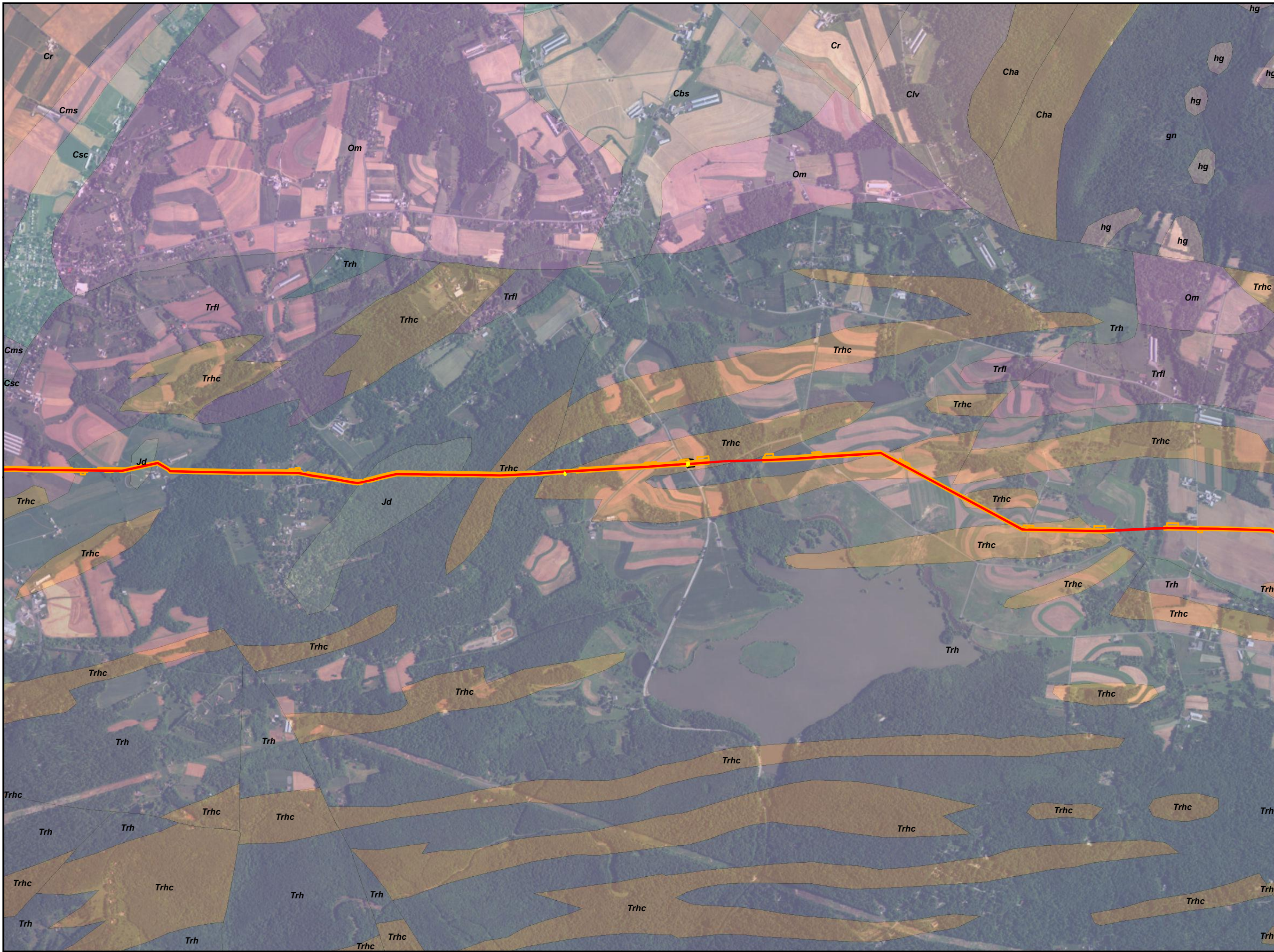


GEOLOGIC UNIT MAP
ATTACHMENT 2-23
PENNSYLVANIA PIPELINE PROJECT
NOVEMBER 12, 2016 ALIGNMENT
SUNOCO LOGISTICS, L.P.
LEBANON COUNTY,
PENNSYLVANIA

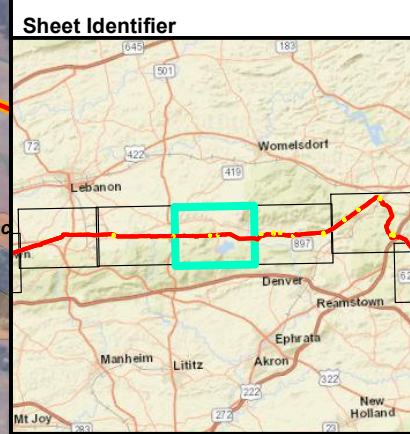


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- ### Legend
- Access Road
 - Alignment Centerline
 - Limit of Disturbance
 - Block Valve/Station
 - Buffalo Springs Formation (Cbs)
 - Hardyston Formation (Cha)
 - Leithsville Formation (Clv)
 - Millbach and Schaeferstown Formations undivided (Cms)
 - Richland Formation (Cr)
 - Snitz Creek Formation (Csc)
 - Diabase (Jd)
 - Martinsburg Formation (Om)
 - Limestone fanglomerate (Trfl)
 - Hammer Creek Formation (Trh)
 - Hammer Creek conglomerate (Trhc)
 - Felsic to mafic gneiss (gn)
 - Hornblende gneiss (hg)



GEOLOGIC UNIT MAP
ATTACHMENT 2-24
PENNSYLVANIA PIPELINE PROJECT
NOVEMBER 12, 2016 ALIGNMENT
SUNOCO LOGISTICS, L.P.
LEBANON, LANCASTER COUNTY,
PENNSYLVANIA

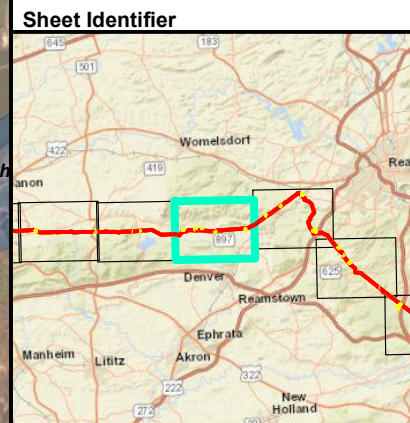


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- ### Legend
- Access Road
 - Alignment Centerline
 - Limit of Disturbance
 - Block Valve/Station
 - Hardyston Formation (Cha)
 - Martinsburg Formation (Om)
 - Limestone fanglomerate (Trfl)
 - Hammer Creek Formation (Trh)
 - Hammer Creek conglomerate (Trhc)
 - Graphitic felsic gneiss (gg)
 - Felsic to mafic gneiss (gn)
 - Graphitic Felsic Gneiss (gqm)
 - Hornblende gneiss (hg)



GEOLOGIC UNIT MAP
ATTACHMENT 2-25
PENNSYLVANIA PIPELINE PROJECT
NOVEMBER 12, 2016 ALIGNMENT
SUNOCO LOGISTICS, L.P.
LANCASTER COUNTY,
PENNSYLVANIA



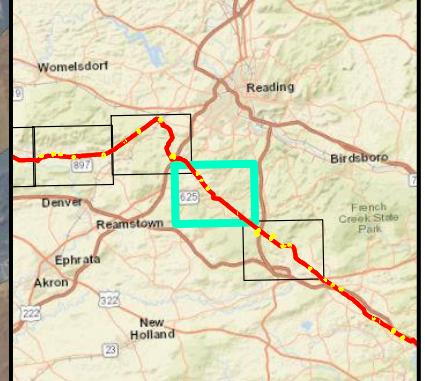
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- Legend**
- Access Road
 - Alignment Centerline
 - Limit of Disturbance
 - Block Valve/Station
 - Diabase (Jd)
 - Hammer Creek Formation (Trh)
 - Hammer Creek conglomerate (Trhc)

Sheet Identifier

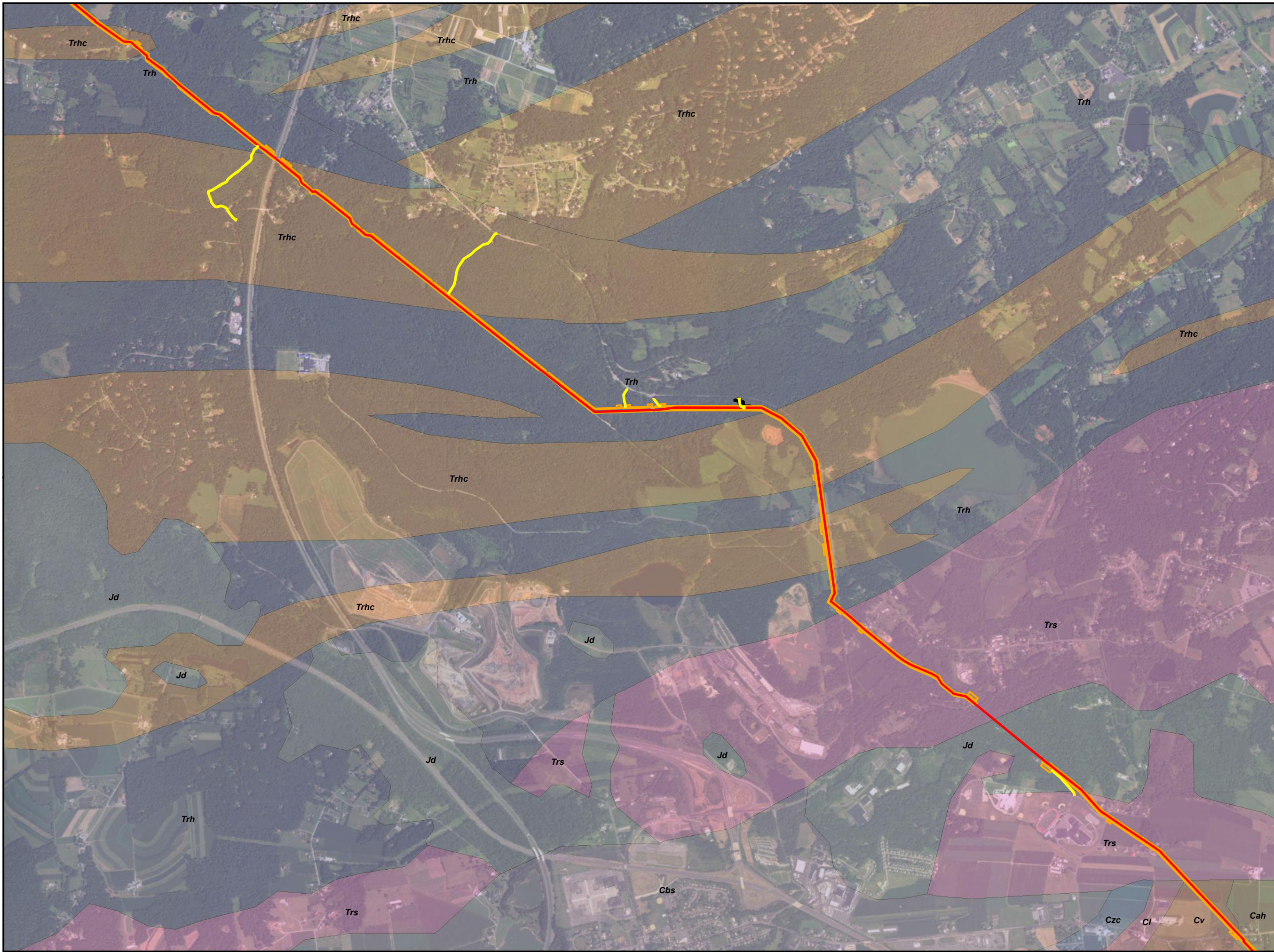


GEOLOGIC UNIT MAP
ATTACHMENT 2-27
PENNSYLVANIA PIPELINE PROJECT
NOVEMBER 12, 2016 ALIGNMENT
SUNOCO LOGISTICS, L.P.
BERKS COUNTY,
PENNSYLVANIA

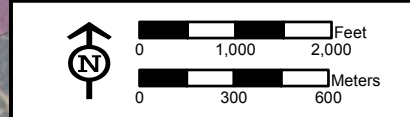
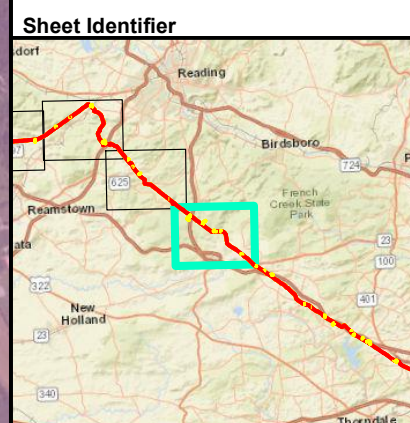


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- ### Legend
- Access Road
 - Alignment Centerline
 - Limit of Disturbance
 - Block Valve/Station
 - Antietam and Harpers Formations undivided (Cah)
 - Buffalo Springs Formation (Cbs)
 - Chickies Formation (Cch)
 - Ledger Formation (Cl)
 - Vintage Formation (Cv)
 - Zooks Corner Formation (Czc)
 - Diabase (Jd)
 - Hammer Creek Formation (Trh)
 - Hammer Creek conglomerate (Trhc)
 - Stockton Formation (Trs)



GEOLOGIC UNIT MAP
ATTACHMENT 2-28
PENNSYLVANIA PIPELINE PROJECT
NOVEMBER 12, 2016 ALIGNMENT
SUNOCO LOGISTICS, L.P.
BERKS COUNTY,
PENNSYLVANIA



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