

Inspection Photos

1/15/2019

Operator: SWN PRODUCTION COMPANY LLC -
10396

Location ID: 427955

Inspection Doc. Number: 682504411
Adams County, CO

Aaron Trujillo
NE Reclamation Specialist
COGCC



Photo 1: Photo taken from the southeast corner of the location, facing north. Photos 1-3 provide an overview of the location from north, northwest to east. Corrective actions and COAs required operator to conduct reclamation and reduce the location's disturbance area to 0.92 acres. Photos show reclamation has not been conducted; disturbance area has not been reduced.



Photo 2: Photo taken from the southeast corner of the location, facing northwest. See comments under photo 1.



Photo 3: Photo taken from the southeast corner of the location, facing west. See comments under photo 1.



Photo 4: Photo taken from the cut slopes on the southeast corner of the location. Corrective actions required operator to repair erosion degradation and conduct revegetation activities on the cut slopes of the location. Photo shows stormwater erosion has not been repaired/stabilized, and BMPs have not been installed/maintained. Stormwater has been allowed to continue, and has continued to degrade the location. Photo also shows additional revegetation activities to stabilize slope has not been conducted. 6 foot measuring stick for reference.



Photo 5: See comments under photo 4.

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Photo 6: Photo taken from area of the “spoils” stockpile on the south end of the location, facing west. Photo shows areas of bare and exposed soil with large furrows. Previous inspections required operator to repair erosion and stabilize slopes. Photo shows erosion has not been repaired and BMPs have not been installed. Photo also show reclamation activities do not appear to have been conducted per CAs and COAs



Photo 7: Photo taken from the south end of the location, facing southwest. Photo shows wood-mulch wattle stormwater ponding BMP. Previous inspection documented BMP was degrading. Photo shows BMP has not been maintained/repaired.



Photo 8: Photo taken from the ditch on the southwest corner of the location, facing south. Previous inspections documented that stormwater runoff has incised the ditch along the west end of the pad and created sinkholes within the ditch. Photo shows a new sinkhole has developed within the ditch.



Photo 9: See comments under photo 8. 6 foot measuring stick for reference.



Photo 10: See comments under photo 8. 6 foot measuring stick for reference.



Photo 11: Photo taken from the west end of the location, facing north. Photo shows stormwater degradation within the ditch has not been repaired and stabilized. Stormwater has continued to incise within the ditch and sinkhole appears to have expanded.



Photo 12: Photo taken from the west end of the location, facing west. See comments under photo 11. 6 foot measuring stick for reference.



Photo 13: Photo taken from the west end of the location, facing south. See comments under photo 11.



Photo 14: Photo taken ~100 feet north from photo 13. Photo shows a third sinkhole appears to be forming within the ditch along the west end of the location.



Photo 15: Photo taken from the northwest end of the location, facing northeast. Photo shows a patch of Canada thistle.



Photo 16: Photo taken from the ditch on the northwest end of the location, facing west. Photo shows erosion degradation cutting eastward into the pad has not been repaired or stabilized. 6 foot measuring stick for reference.



Photo 17: Photo taken from the north end of the location, facing northeast. Photo shows unused equipment not needed for production remains on location. Photo shows gully erosion has not been repaired/stabilized.



Photo 18: Photo taken from the ditch on the northwest end of the pad. Photos show stormwater runoff from the pad into the ditch has created rill erosion. Stormwater degradation has not been repaired or stabilized.



Photo 19: Photo taken from the gully on the northwest end of the pad, facing southwest. Photo shows gully erosion has not been repaired/stabilized. 6 foot measuring stick for reference.



Photo 20: Photo taken from the gully on the northwest end of the pad, facing north. Photo shows gully erosion has not been repaired/stabilized. 6 foot measuring stick for reference.



Photo 21: Photo taken from the gully on the northwest end of the pad, facing southwest. Photo shows gully erosion has not been repaired/stabilized.



Photo 22: Photo taken from the stormwater ditch along the perimeter of the west end of the location. Previous inspection documented that ditch BMP has filled with sediment and is not longer in proper functioning condition. BMP should have been reclaimed during interim reclamation. Photo shows BMP remains filled with sediment. Photo also shows interim reclamation to reduce the area of disturbance has not been conducted.

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Photo 23: Photo taken from the northeast end of the location, facing northeast. Previous inspection documented that the cut slopes on the east end of the location remains predominantly bare and exposed soil and with erosion degradation evident. Inspection required operator to repair erosion, stabilize the slopes and conduct revegetation activities. Photos 23-27 show erosion degradation has not been repaired, no BMPs have been installed, and no revegetation activities appear to have been conducted.



Photo 24: See comment under photo 23.



Photo 25: Photo taken from the northeast end of the location, facing north. See comments under photo 23. 6 foot measuring stick for reference.



Photo 26: Photo taken from the northeast end of the location, facing northeast. See comments under photo 23. 6 foot measuring stick for reference.



Photo 27: Photo taken from the northeast end of the location, facing southwest. See comments under photo 23. 6 foot measuring stick for reference.



Photo 28: Photo taken from the northeast corner of the location, facing south. Photos 28-29 provide an overview of the location from south to west. Corrective actions and COAs required operator to conduct reclamation and reduce the location's disturbance area to 0.92 acres. Photos show reclamation has not been conducted; disturbance area has not been reduced.



Photo 29: See comments under photo 28

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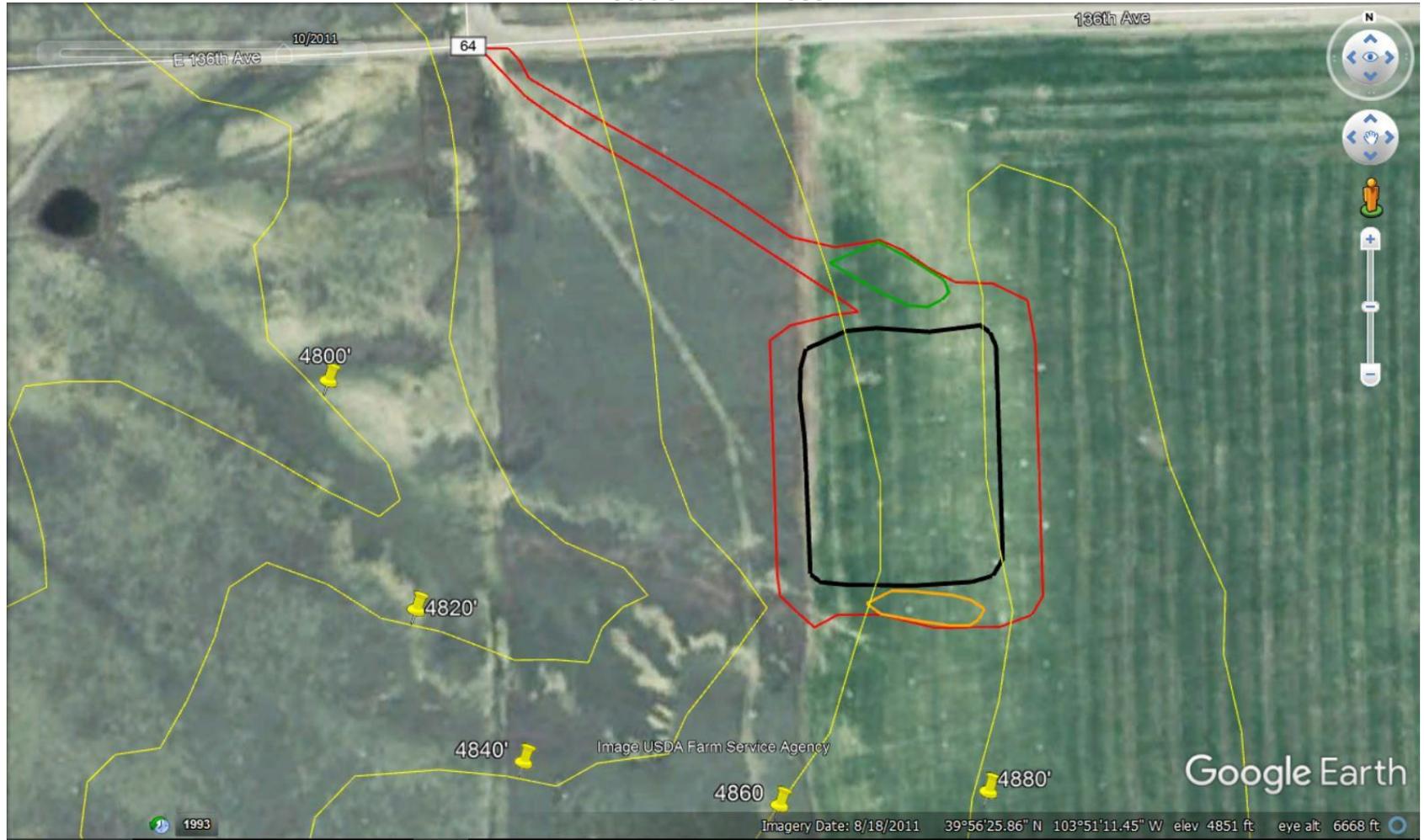


Photo 30: 2011 aerial imagery. Photo shows the location prior to oil and gas disturbances. Yellow lines indicate elevation/topography. Red polygon represents total disturbance (location+access road). Total disturbance is ~4.9 acres (4.5 acres excluding access road). Black polygon represents pad/production area size. Pad size is ~2.43 acres. Green polygon represents area of the topsoil stock pile and orange polygon represents area of “spoils” stockpile based on location drawing, “Exhibit A”, of document #401313989.

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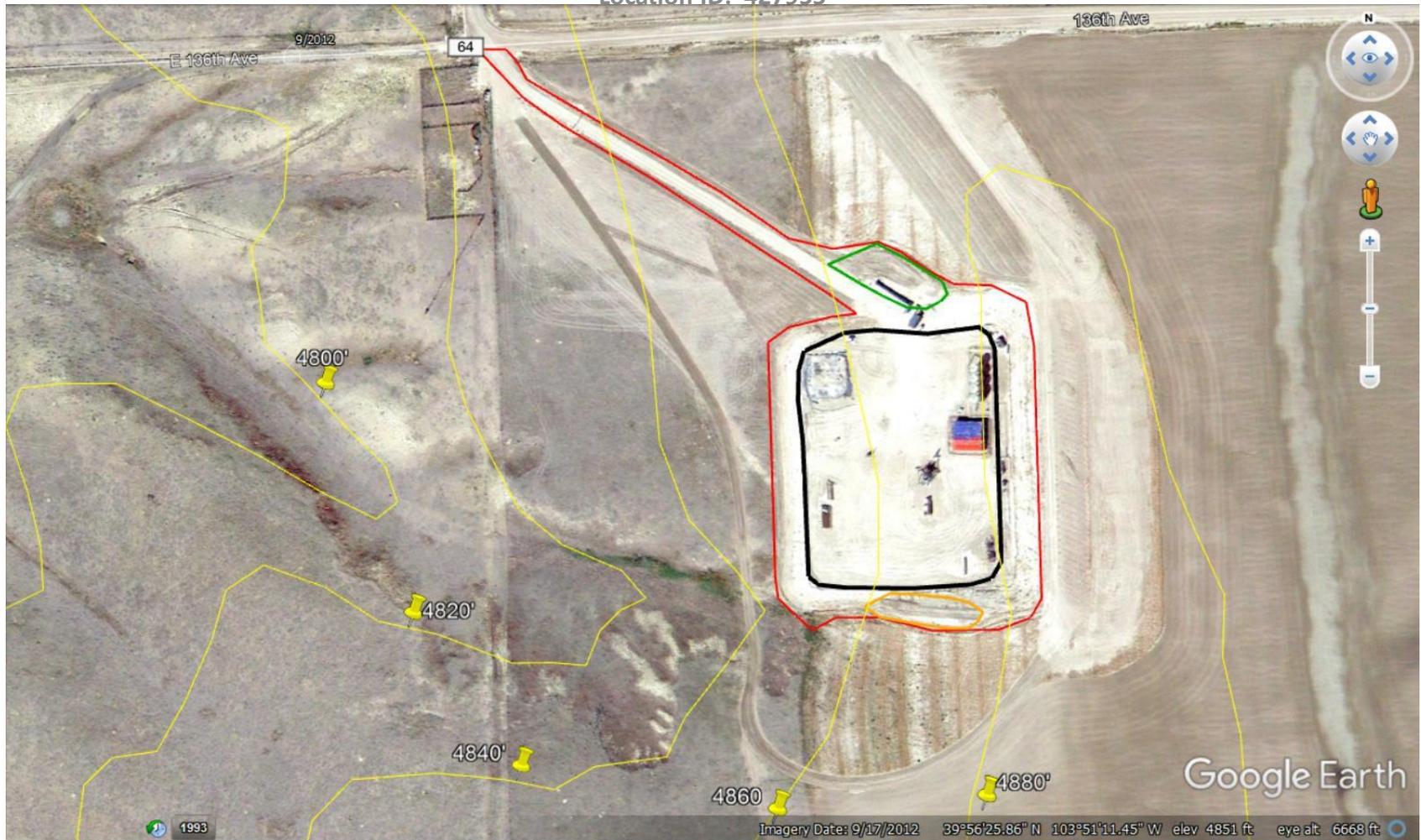


Photo 31: 9/17/2012 Aerial imagery. Well was SPUD 4/11/2012. COGCC records show first production date on 07/2012. COGCC 1003 reclamation rules require operator to perform interim reclamation (IR) on areas no longer reasonably needed for production to occur no later than three (3) months on cropland after drilling operations. Date IR would need to have been conducted is 10/2012. Photo shows location prior to when IR would need to have been conducted. 2A doc. # 400252948 states disturbance size during construction is 3.67 acres. Total disturbance size is ~4.5 acres (4.92 with access road).

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Photo 32: 9/06/2013 aerial imagery. 2A doc. #400252948 states size of location after IR is 0.92 acres, with IR estimated to begin on 9/1/2012. Based on production records, interim reclamation (IR) on areas no longer reasonably needed for production should have occurred no later than 10/2012. Photo image date is 11 months after when IR should have occurred. Photo shows location does not appear to have been reduced in size; IR does not appear to have been conducted. Total disturbance remains ~4.9 acres with pad/production area ~2.43 acres.



Photo 33: Current available aerial imagery dated 06/14/2016. 6(s) doc. #400900611 states well was PA'd on 8/28/2015. Photo shows well and equipment appear to have been removed. Location would now have been subject to 1004 reclamation rules which require final reclamation to be completed within 3 months on crop land after plugging a well. Final reclamation should have been completed by 11/28/2015. Photo shows location/disturbance size