




MINERALS PROGRAM INSPECTION REPORT
PHONE: (303) 866-3567

The Division of Reclamation, Mining and Safety has conducted an inspection of the mining operation noted below. This report documents observations concerning compliance with the terms of the permit and applicable rules and regulations of the Mined Land Reclamation Board.

MINE NAME: Two Rivers	MINE/PROSPECTING ID#: M-1998-038	MINERAL: Gravel	COUNTY: Pueblo
INSPECTION TYPE: Monitoring	INSPECTOR(S): Patrick Lennberg	INSP. DATE: January 17, 2020	INSP. TIME: 09:30
OPERATOR: Kirkland Construction, R.L.L.P.	OPERATOR REPRESENTATIVE: Baxter Kirkland and Tim Gerken	TYPE OF OPERATION: 112c - Construction Regular Operation	

REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: Complete Bond	BOND AMOUNT: \$371,968.00
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None
WEATHER: Clear	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: January 24, 2020

The following inspection topics were identified as having Problems or Possible Violations. OPERATORS SHOULD READ THE FOLLOWING PAGES CAREFULLY IN ORDER TO ASSURE COMPLIANCE WITH THE TERMS OF THE PERMIT AND APPLICABLE RULES AND REGULATIONS. If a Possible Violation is indicated, you will be notified under separate cover as to when the Mined Land Reclamation Board will consider possible enforcement action.

INSPECTION TOPIC: Right of Entry

PROBLEM: Failure to maintain legal right of entry per Rule 6.3.7.

CORRECTIVE ACTIONS: The permittee/operator must provide proof of legal right to enter and conduct mining and reclamation operations.

CORRECTIVE ACTION DUE DATE: 3/09/20

INSPECTION TOPIC: Reclamation Success

PROBLEM: Failure to follow approved reclamation plan, or current reclamation plan needs to be updated and clarified pursuant to C.R.S. 34-32.5-116 (1). The operator must follow approved reclamation plan or provide sufficient information to describe or identify how the operator intends to conduct reclamation.

CORRECTIVE ACTIONS: The operator shall submit a Technical Revision, with the required \$216 revision fee, to update and clarify the current approved reclamation plan to reflect existing and proposed activities by the

corrective action date.

CORRECTIVE ACTION DUE DATE: 3/09/20

INSPECTION TOPIC: Markers

PROBLEM: The affected area boundary markers are missing or incorrectly placed. This is a problem for failure to maintain boundary markers around the affected area as required by Rule 3.1.12(2).

CORRECTIVE ACTIONS: The operator shall conduct a survey and replace the boundary markers in the correct location(s). The operator shall provide proof to the Division that this has been done by the corrective action date.

CORRECTIVE ACTION DUE DATE: 3/09/20

INSPECTION TOPIC: Revegetation

PROBLEM: Tamarisk (salt cedar) and Russian Olive trees are present within the permit area and are becoming established. This is a problem for failure to employ the approved weed control plan for a state listed noxious weed species within the permitted area, and to reduce the spread of weeds to nearby areas as required by Rule 3.1.10 (6).

CORRECTIVE ACTIONS: The operator shall implement the existing weed control plan and provided evidence (photos and/or invoices) that the plan is being implemented.

CORRECTIVE ACTION DUE DATE: 3/09/20

OBSERVATIONS

The Two Rivers Pit was inspected by Patrick Lennberg with the Division of Reclamation, Mining and Safety (Division/DRMS). The inspection was completed as part of the Division's routine monitoring inspection program. The site was previously inspected by the Division on January 14, 2016 as part of the Division's routine monitoring. Baxter Kirkland, the Operator, and Tim Gerken, Telesto Inc. the Operators consultant, accompanied me during the inspection. The weather was clear and cool.

The Two Rivers Pit is located in Pueblo County approximately 5.5 miles east of Avondale, Colorado. The Two Rivers Pit is a 339-acre 112c Construction Materials Reclamation Permit with a maximum allowed disturbance of 99 acres. The primary commodity being mined at the site is sand and gravel. The 112c Construction Materials Reclamation Permit was issued in July 1998. The 112c Two Rivers Pit was permitted over the area previously permitted by a 111 permit. The approved post-mining land use is rangeland. The mine site was surrounded by the following land uses: residential, agricultural, and rangeland. A mine sign was observed as required by Rule 3.1.12.

The land where the permit is located was sold in June-July 2019 and the Division no longer has a valid Legal Right of Entry on file, as required by Rule 6.3.7, and this is being cited as a problem within this report. The site was not active at the time of inspection and a review of the annual reports indicates that activity at the site ceased in 2015. It appears that all mining related disturbance has taken place on top of the gravelly terrace. Mining started at the crest of the terrace and progressed to the south. It appears that no mining related disturbance has taken place within the Arkansas River alluvium or the Huerfano River alluvium to the north of the terrace. At the present time it appears that the mining operation had affected approximately 104 acres throughout the life of mine, with approximately 37 acres in final reclamation. Failure to complete reclamation in a timely manner as indicated in the approved reclamation plan is being cited as problem within this report. The operator shall submit a Technical Revision to update and clarify the current approved reclamation plan to reflect existing and proposed activities.

There are several stockpiles scattered throughout the affected area. There are also a few stockpiles of broken up concrete and asphalt. In the southeastern corner of the affected area the highwall appears to be close to the permit boundary. The permit boundary is not clearly marked in this area and is being cited as a problem per Rule 3.1.12(2) in this report. The Operator needs to mark the boundary to prevent offsite damages. With the highwall close to permit boundary the Operator will have to grade the slopes to 3H:1V or shallower by pushing-up material. Also, there is a deep excavation immediately adjacent to the highwall that has the potential for capturing and detaining storm water. The Operator needs to backfill this area and re-establish the natural drainage in the area. There is another area to the north that also appears to have the potential for capturing and detaining storm water and can possibly be linked to southern area.

The southern border of the excavation has highwalls that ranges in slope from 1H:1V to just flatter than 1.5H:1V. All highwalls will need to be graded to a 3H:1V or shallower slope. The Division estimates there is approximately 4,100 feet of highwall that needs reclaiming. The majority of the highwalls can be graded out using a push-down method with a dozer however there is approximately 1,100 feet of highwall that will need material pushed-up to achieve the desired reclamation slope. Highwalls vary greatly in height, ranging from 15 feet to near 40 feet with an average estimated to be 20 feet high.

The Operator has successfully backfilled and graded the northern portions of the terrace to 3H:1V or flatter. The Operator has conducted reclamation on approximately 37 acres. The vegetative cover on the 37 acres has established with desired species. There are a few areas within the 37 acres that need Tamarisk trees removed and there are a few stockpiles that need to be relocated.

Tamarisk (salt cedar) and Russian olive trees are present within portions of the reclaimed pit floor and toe of pit slopes. This is a problem for failure to employ the approved weed control plan for state listed noxious weed species within the affected lands, and to reduce the spread of weeds to nearby areas as required by Rule 3.1.10 (6). This has been cited as a problem within this inspection report.

During the inspection the Operator stated that he is entering the pit into final reclamation. The Operator will have five years from the signature date on this inspection report to complete final reclamation. Additionally, the Operator was informed that the areas north of the mining activity, where the farming is currently underway, may be released from the permit if desired. Releasing this area will not impact the bond amount for the permit because the Division only holds a bond amount sufficient to reclaim areas affected by mining.

The Division evaluated the financial warranty and determined the current bond amount held by the Division is adequate at this time.

Photographs taken during the inspection are attached.

Please contact Patrick Lennberg (303)866-3567 ext. 8114 or email at patrick.lennberg@state.co.us if you have any questions regarding this report.

Inspection Contact Address

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PHOTOGRAPHS



Photo 1: Mine sign at entrance to mine site



Photo 2: Main haul road to mine



Photo 3: Southeast corner of mine, arrows indicate deep excavation needing fill

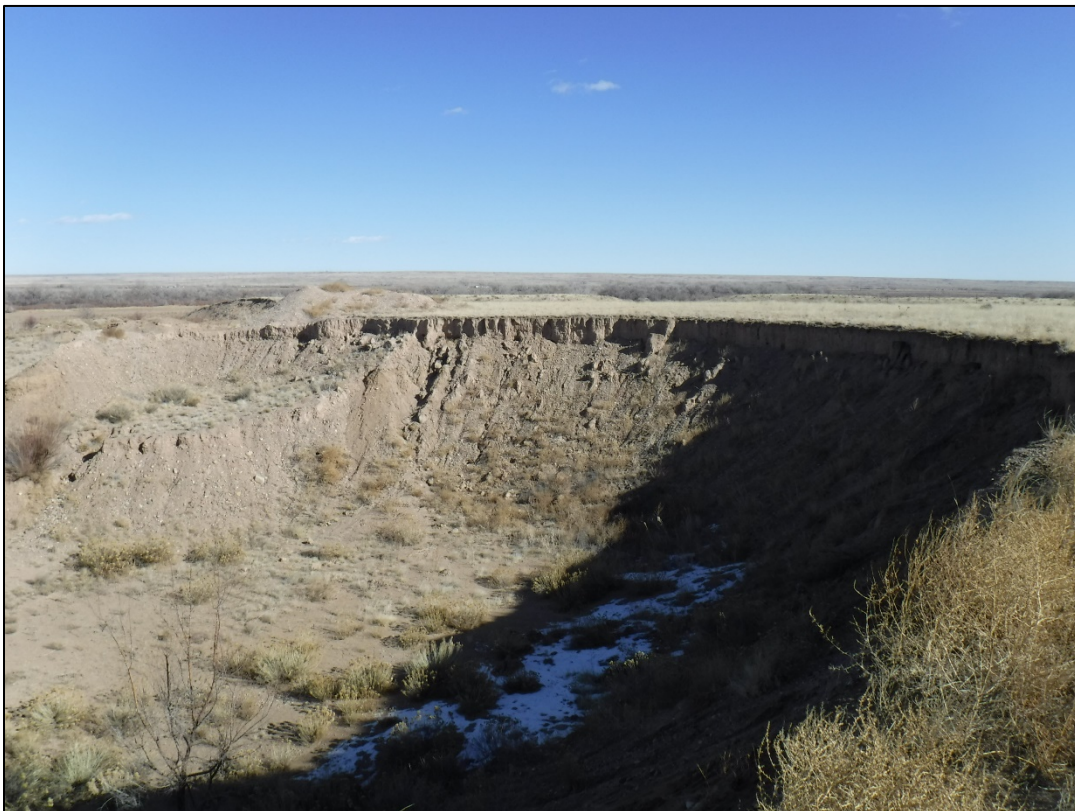


Photo 4: Southeast corner highwall near permit boundary, looking east



Photo 5: Southeast corner highwall near permit boundary, looking south



Photo 6: Southeast corner highwall near permit boundary, looking west



Photo 7: Southeast corner deep excavation, looking west



Photo 8: Highwall conditions north of the SE corner area, looking southwest

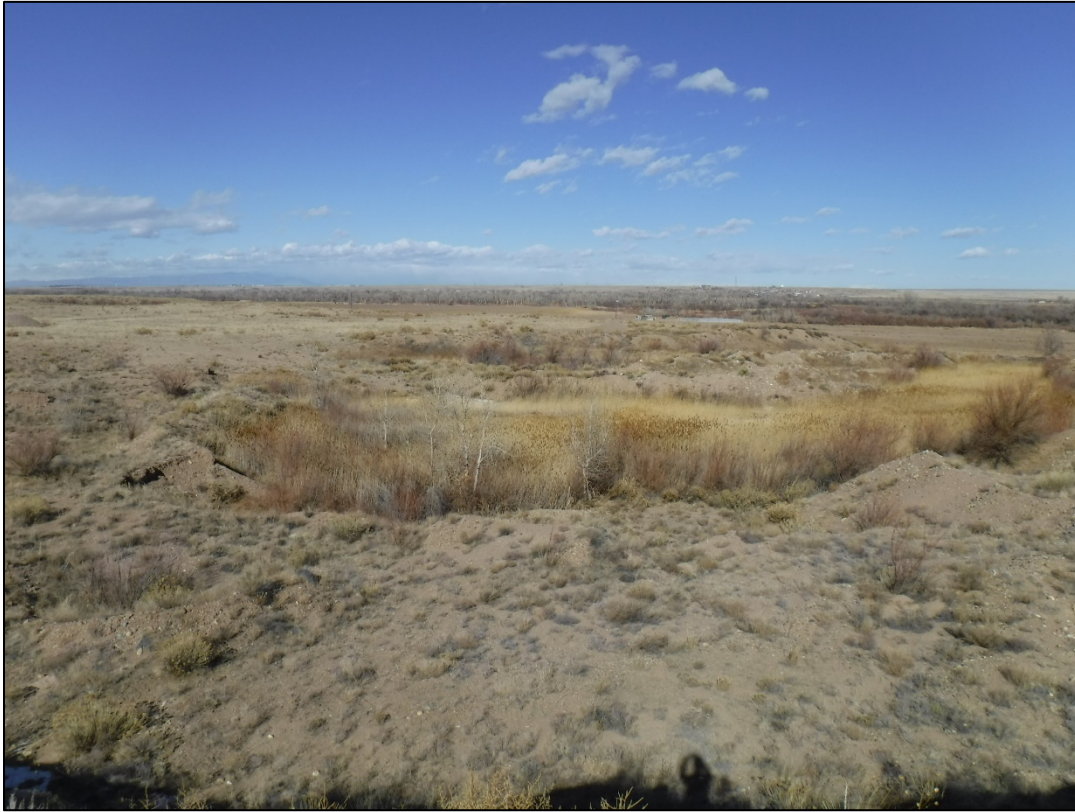


Photo 9: Area to the north of the SE corner deep excavation, looking northwest



Photo 10: Typical Tamarisk trees encountered throughout the site



Photo 11: Southeast corner near permit boundary, looking southeast

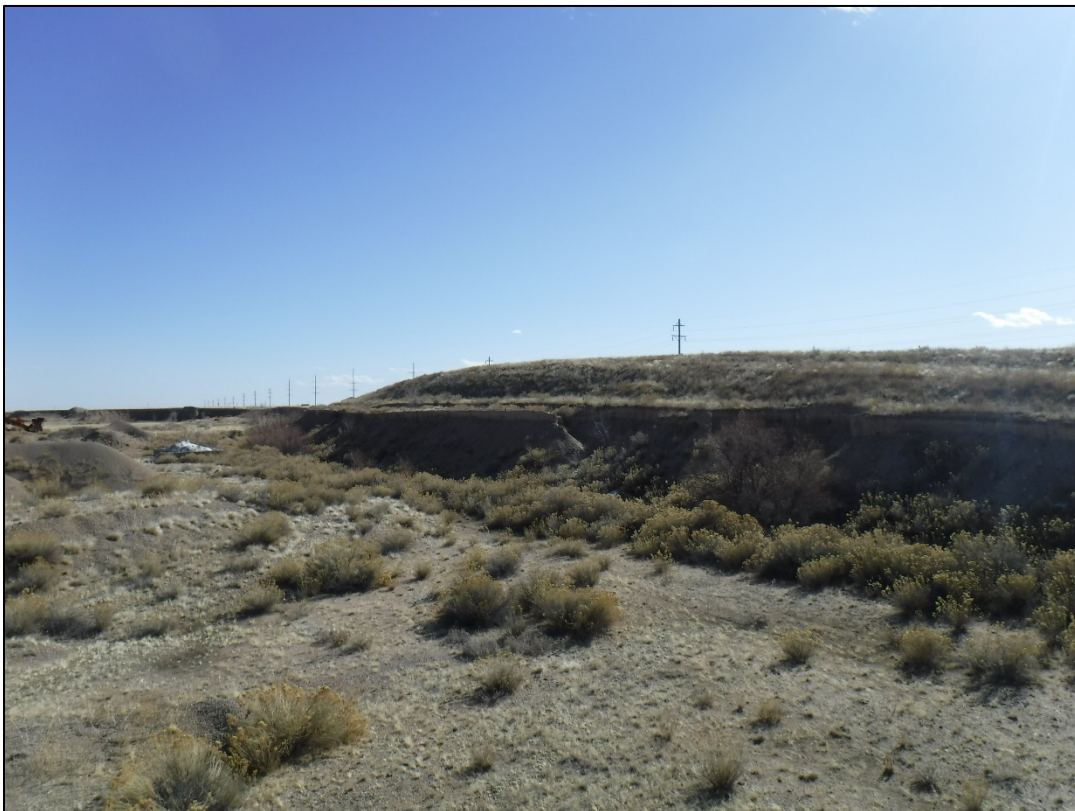


Photo 12: Middle portion of pit showing highwall conditions and topsoil stockpile, looking east



Photo 13: Middle portion showing highwall conditions and product stockpiles, looking west



Photo 14: Western portion showing product stockpiles to the east



Photo 15: Product stockpiles looking northeast from topsoil stockpile



Photo 16: Product stockpiles looking northwest from topsoil stockpile



Photo 17: Typical highwall conditions in the western portion of the mining area, looking east



Photo 18: Typical highwall conditions in the western portion of the mining area, looking west



Photo 19: Looking northwest from disturbed lands to unaffected areas of the permit



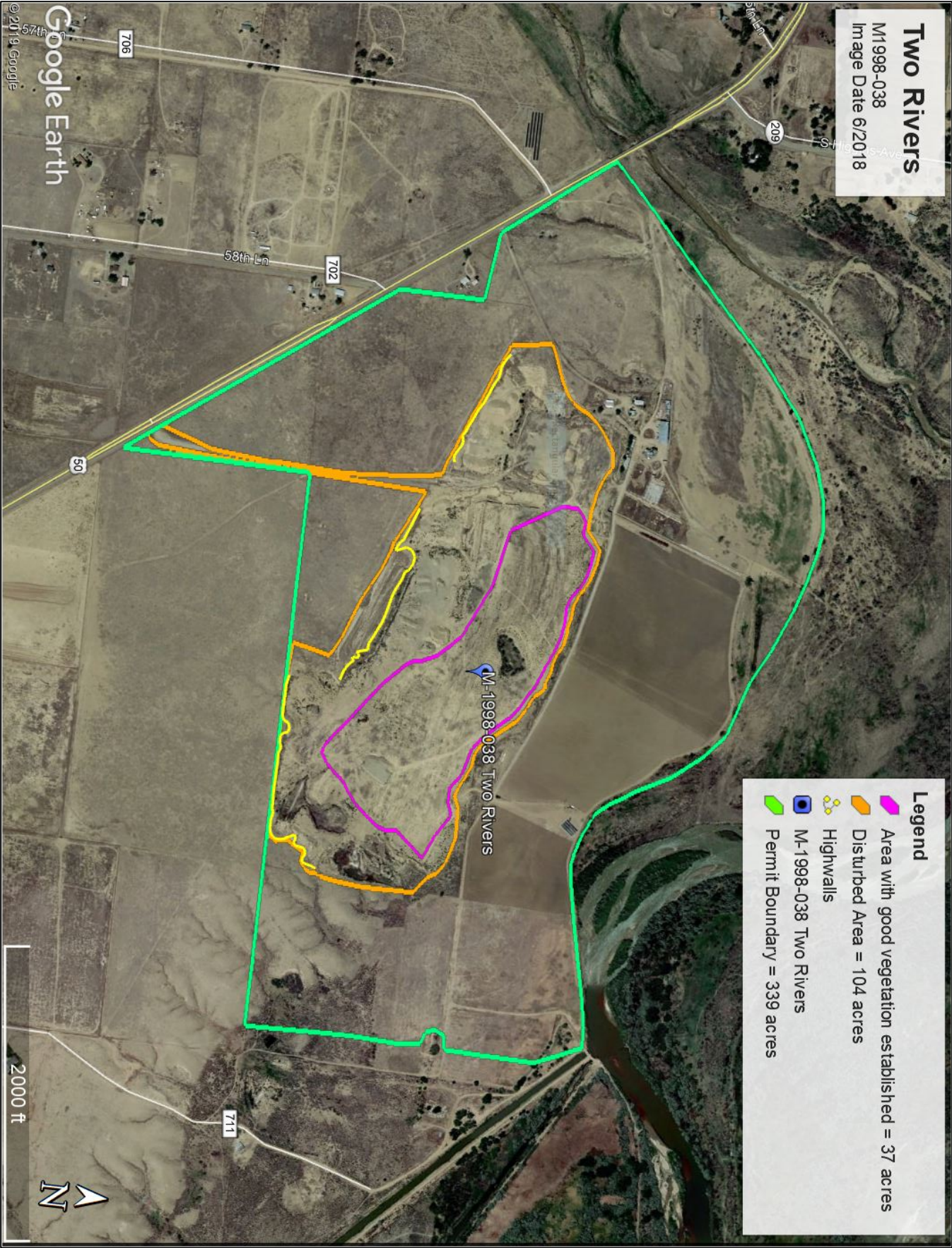
Photo 20: Looking northeast from disturbed lands to unaffected areas of the permit



Photo 21: Typical conditions of those areas in final reclamation



Photo 22: Typical conditions of those areas in final reclamation



GENERAL INSPECTION TOPICS

The following list identifies the environmental and permit parameters inspected and gives a categorical evaluation of each

(AR) RECORDS----- <u>N</u>	(FN) FINANCIAL WARRANTY----- <u>Y</u>	(RD) ROADS----- <u>Y</u>
(HB) HYDROLOGIC BALANCE----- <u>Y</u>	(BG) BACKFILL & GRADING----- <u>Y</u>	(EX) EXPLOSIVES----- <u>N</u>
(PW) PROCESSING WASTE/TAILING---- <u>N</u>	(SF) PROCESSING FACILITIES----- <u>N</u>	(TS) TOPSOIL----- <u>Y</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>Y</u>	(FW) FISH & WILDLIFE----- <u>N</u>	(RV) REVEGETATION---- <u>PB</u>
(SM) SIGNS AND MARKERS----- <u>PB</u>	(SP) STORM WATER MGT PLAN---- <u>N</u>	(RS) RECL PLAN/COMP-- <u>PB</u>
(ES) OVERBURDEN/DEV. WASTE----- <u>N</u>	(SC) EROSION/SEDIMENTATION--- <u>Y</u>	(ST) STIPULATIONS----- <u>Y</u>
(AT) ACID OR TOXIC MATERIALS----- <u>N</u>	(OD) OFF-SITE DAMAGE----- <u>N</u>	

Y = Inspected and found in compliance / N = Not inspected / NA = Not applicable to this operation / PB = Problem cited / PV = Possible violation cited