



COLORADO

Division of Reclamation,
Mining and Safety


Department of Natural Resources

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: Lamar West Pit	MINE/PROSPECTING ID#: M-1981-132	MINERAL: Sand and gravel	COUNTY: Prowers
INSPECTION TYPE: Monitoring	INSPECTOR(S): Amy Eschberger	INSP. DATE: November 27, 2017	INSP. TIME: 11:00
OPERATOR: Valco, Inc.	OPERATOR REPRESENTATIVE: Tom Brubaker	TYPE OF OPERATION: 112c - Construction Regular Operation	

REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: Partial Bond	BOND AMOUNT: \$7,160.00
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None
WEATHER: Clear	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: December 1, 2017

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: Hydrologic Balance

PROBLEM: The Division has no evidence that the operator has a valid well permit, substitute water supply plan, or approved water augmentation plan for the exposed groundwater at the site. This is a problem related to 34-32.5-116(4)(h) of the Colorado Revised Statutes and 3.1.6(1)(a) of the Construction Materials Rules and Regulations governing injury to existing water rights.

CORRECTIVE ACTIONS: The operator shall demonstrate that the operation is in compliance with the Office of the State Engineer (SEO), show evidence that the operator is taking measures to bring the site into compliance with the SEO, or backfill the pits to at least two feet above the groundwater surface by the corrective action date specified.

CORRECTIVE ACTION DUE DATE: March 01, 2018

OBSERVATIONS

This inspection of the Lamar West Pit (Permit No. M-1981-132) was conducted by Amy Eschberger of the Division of Reclamation, Mining and Safety (Division) in response to the operator's request to enter the second 5-year period of Temporary Cessation (Revision No. TC-02), submitted on November 7, 2017. The first 5-year period of Temporary Cessation for the site expired on October 23, 2017. The Division provided notice of the request to Prowers County and the City of Lamar on November 22, 2017. As of the date of this report, the Division has not received any comments pertaining to the request.

The operator, Valco, Inc. was represented by Mr. Tom Brubaker during the inspection. The site is located in the northern part of Lamar, Colorado, west of Highway 50. The site can be accessed from the east via Holly Street. Enclosed with this report are **Photos 1-10**, taken during the inspection.

This is a 112c operation permitted for 67.4 acres to mine sand and gravel via wet mining methods (dragline). The site is situated on a low alluvial terrace of the south bank of the Arkansas River. The northern portion of the permit area includes a section of the river. However, the mining plan does not include disturbing the area north of the river. A 50 foot mining buffer will be maintained from the southern edge of the river. The mining plan consists of three primary phases, with the operation commencing in the southern portion of the permit area, and working generally northward (see enclosed mining plan map). Mined material will be processed in the southeastern portion of the permit area, south of the mining phase 1 area. The operation will disturb no more than 15.8 acres at any time. The affected lands are owned by the operator.

The approved post-mining land use for the site is wildlife habitat. The reclamation plan calls for leaving two ponds approximately 40 feet deep (see enclosed reclamation plan maps). A pond up to 15.8 acres in size will remain in the mining phase 1 area, and a pond up to 27.6 acres in size will remain in the area of mining phases 2 and 3. Pond shorelines will be graded to 3H:1V or flatter. Excess overburden, if available, will be used to add sinuosity to the shoreline. Topsoil will be replaced on disturbed areas at a depth of 9-15 inches to the waterline. Per recommendations by the local Soil Conservation Service, revegetation of the site is divided into two separate programs, one for heavier soils present in the southern half of the site, and the other for sandy soils with limited topsoil present in the northern half of the site. Disturbance in the southern half of the site will be seeded with tall wheatgrass and switchgrass. Disturbance in the northern half of the site will be seeded with switchgrass and sideoats grama. A straw mulch or agronomy blanket will be used to protect seeded areas. Access roads will remain for use by the landowner.

At the time of the inspection, it was warm and dry. A permit sign was posted at the main site entrance off of Holly Street. The permit boundary appeared to be delineated by a ditch/flood levee along its western edge, the Lamar Canal along its southern edge, and fencing along its eastern edge. The Division did not inspect the far northern (undisturbed) portion of the permit area located on the other side of the Arkansas River. The majority of the site has not been disturbed by the operation. Disturbance includes only a small east-west oriented excavation in the southern half of the mining phase 1 area (see enclosed Google Earth image of site). The excavation is approximately 2.75 acres in size, and approximately 15 feet in depth. The slopes of the excavation were graded to flatter than 3H:1V and appeared to be very stable with good vegetative cover. The disturbance area was vegetated with native grasses, forbs, annual weeds, and a few trees. The excavation area appeared to have been reclaimed in accordance with the post-mining land use of wildlife habitat.

The Division would recommend the operator submit a full release request for the site, except that a problem was identified which will require corrective action before the site could be released. The Division observed the pit to be holding some water during the inspection. The Division estimated the water to be approximately one foot in depth and its surface area to be no more than one acre in size. During the past few inspections of the site, the pit

was observed to be dry. However, in review of historic imagery of the site in Google Earth, it appears the excavation has held water at times, at least as far back as 1988. Based on this information, the lack of precipitation in the region in recent weeks, and the presence of wetland vegetation on the pit floor, the Division believes the water is exposed groundwater.

The Division received a letter from the Office of the State Engineer (SEO) on September 24, 1981 with comments regarding the application submittal. At that time, the SEO indicated the operator would need to obtain a well permit and a water court approved plan for augmentation for the proposed unlined ponds. However, no well permit or plan for augmentation has been obtained for the site. Therefore, the Division is citing a problem in this report pursuant to Rule 3.1.6(1)(a) for failure to comply with applicable Colorado water laws and regulations governing injury to existing water rights. The operator will need to either demonstrate compliance with the SEO with regard to exposed groundwater on the site, or backfill the pit to two feet above the groundwater level.

Mr. Brubaker indicated that, if necessary, material could be removed from the outer edges of the pit to place approximately 3 feet of fill in the pit to cover exposed groundwater. Based on the Division's calculations, the operator would need approximately 4,840 cubic yards of material to cover the exposed groundwater to 2 feet above the water level (1 acre pit floor x 1 foot deep). If the operator removes material from the site to backfill the pit, the newly disturbed areas will need to be revegetated in accordance with the approved reclamation plan. Another option would be for the operator to submit a Technical Revision to import inert backfill material to the site for reclamation. Although this option may be more costly, it would minimize disturbance of currently reclaimed areas around the pond so that the site could be released sooner.

Because the site is in final reclamation, the Division believes it does not qualify for a second period of Temporary Cessation. Pursuant to Rule 1.13.3(1), indications against Temporary Cessation include the scenario in which extraction of construction materials has been completed and only final reclamation and related activities occurring at the site are part of the life of the mine. Although the majority of the site is unmined, the operator does not intend to recommence mining activities. Therefore, the Division recommended the operator withdraw the request for Temporary Cessation. The operator submitted a withdrawal request on November 29, 2017, and thus, Revision No. TC-02 has been withdrawn. The site will be considered active as of October 24, 2017, from which date the operator will have five years to complete final reclamation of the site.

It should be noted that a smaller excavation, approximately 0.35 acre in size, is present in the southwestern corner of the permit area, near the intersection of the flood levee and the Lamar Canal. According to Mr. Brubaker, this excavation was not created by the operation. This area is not described in past annual reports submitted by the operator or in inspection reports written by the Division. In review of historical imagery of the site available in Google Earth, this small excavation appears to have been present at least as early as October of 1988. This excavation was holding some water during the inspection. The slopes of the excavation appeared to be stable with vegetative cover. It is possible the excavation was created by the company that constructed the flood levee, canal and other water control structures in the area.

The Division observed some weeds (mainly annual) present on site, especially in the disturbance area. The weeds did not appear to be hindering the growth of desired vegetation. However, the Division recommends the operator continue to monitor the growth and spread of weeds particularly in the disturbed area, and implement the approved weed control plan as needed.

This completed the inspection.

PHOTOGRAPHS



Photo 1. View of permit sign posted at main site entrance off of Holly Street.



Photo 2. View looking west across northern portion of mining phase 1 area, which was undisturbed by the operation.



Photo 3. View looking north across area of mining phases 2 and 3, which were undisturbed by the operation.



Photo 4. View looking southeast from southwestern corner of permit area, showing Lamar Canal present along southern permit boundary. Note canal was dry at the time of the inspection.



Photo 5. View looking east across reclaimed excavation area located in southern portion of permit area. This disturbance is 2.75 acres in size and approximately 15 feet deep, with slopes that are flatter than 3H:1V.



Photo 6. View looking west across reclaimed excavation area located in southern portion of permit area. Note presence of wetland vegetation across bottom of excavation.



Photo 7. View looking south across reclaimed excavation area located in southern portion of permit area. Note presence of water and wetland vegetation at bottom of excavation.



Photo 8. View looking west across reclaimed excavation area located in southern portion of permit area. Note slopes of excavation graded flatter than 3H:1V and fairly well vegetated with native grasses, forbs, and some annual weeds.



Photo 9. View looking east across land east of excavation, which was undisturbed by the operation.



Photo 10. View of small excavation located in southwestern corner of permit area, near the intersection of the flood levee and the Lamar Canal. The operator indicates this excavation was not done by the operation and may have been created by the company that constructed the nearby water control structures.

GENERAL INSPECTION TOPICS

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

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

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

Inspection Contact Address

Tom Brubaker
Valco, Inc.
9296 Windhaven Dr.
Parker, CO 81034

Enclosures: Mining Plan Map
Reclamation Plan Maps (2)
Google Earth image of site

CC: Wally Erickson, DRMS



LAMAR - WEST PIT

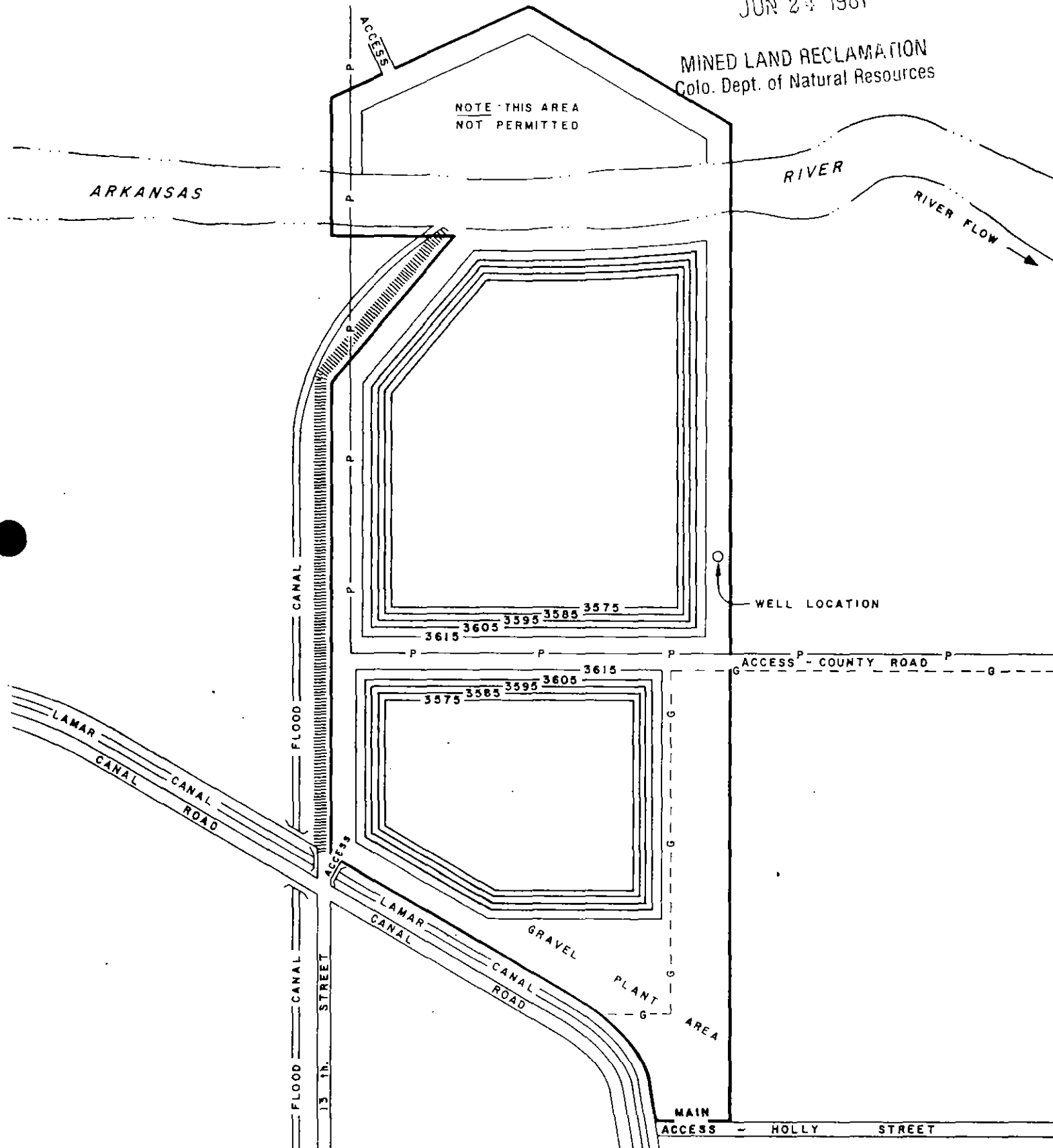
FINISHED CONTOUR MAP

1. PIT BOTTOM IS 40' BELOW GROUND LEVEL.
2. PIT BANKS WILL BE SLOPED AT 3:1 TO 10' BELOW THE WATER LINE AND 2:1 FROM 10' THEREAFTER TO BOTTOM OF PIT.

RECEIVED

JUN 24 1981

MINED LAND RECLAMATION
Colo. Dept. of Natural Resources



===== BERM, EARTH
P = POWER LINES; OVERHEAD
G = GAS PIPE; UNDERGROUND



0 400
FEET

CLIENT - VALCO / LAMAR
DIVISION
LAMAR - WEST PIT
CONSULTANT - LLOYD V. BARNHART
CARTOGRAPHER - H. D. DICKERSON
DATE - JANUARY 31, 1981

LAMAR - WEST PIT RECLAMATION MAP

1. BACKSLOPES WILL BE FINISHED AT 3:1 TO 10' BELOW THE WATER LINE AND 2:1 FROM 10' THEREAFTER.
2. 9" TO 15" OF TOPSOIL WILL BE REPLACED ON BACKSLOPES TO THE WATERLINE PLUS ADJACENT DISTURBED AREAS.
3. BACKSLOPES AND ADJACENT DISTURBED AREAS WILL BE RESEEDED WITH:

a. HEAVY SOILS AREA

TALL WHEATGRASS
SWITCHGRASS

11 #/ACRE PLS.
2.5 #/ACRE PLS.

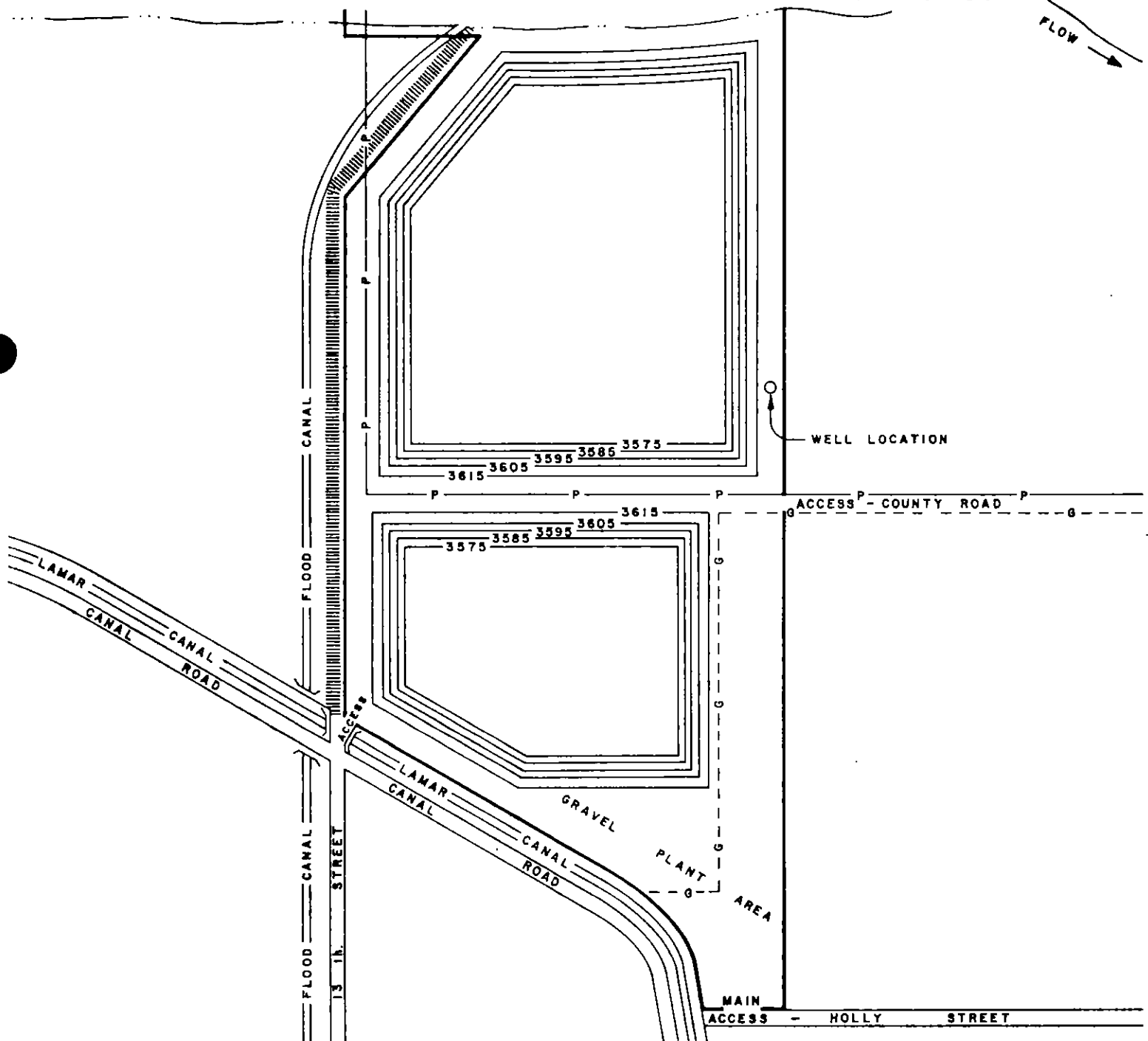
b. SANDY SOILS AREA

SWITCHGRASS
SIDEOATS GRAMA

2.5 #/ACRE PLS.
4.5 #/ACRE PLS.

c. TOPSOIL STOCKPILES

ARKANSAS YELLOW SWEETCLOVER 7.0 #/ACRE PLS.



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0 400
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M-1981-132 / Lamar West Pit / Valco, Inc.

Red Outline = 67.4 acres = Approved Permit Area

Yellow Outline = 27.6 acres = North Pit Area (Mining Phases 2 and 3)

Blue Outline = 15.8 acres = South Pit Area (Mining Phase 1)

Purple Outline = 2.75 acres = Disturbed Area (including 15 ft deep excavation with flatter than 3H:1V slopes)

(Image Data from 6/12/2017)

