



SITE INVESTIGATION PLAN

Refuge to Mallard Production Line Facility ID: 480884

Section 16, T7N R80W

Jackson County, Colorado

Prepared for:

**D90 Energy LLC
952 Echo Lane Suite 480
Houston, TX 77024**

Prepared by:

**Absaroka Energy and
Environmental Solutions, LLC.
112 High St.
Buffalo, WY 82834**



D90.CO.0506

March 2022



Joel Mason
Senior Project Manager





Contents

1	INTRODUCTION	1
1.1	SITE DESCRIPTION AND LOCATION	1
1.2	CONTACT INFORMATION	1
1.3	HISTORIC LAND USE	2
1.4	HIGH PRIORITY HABITAT REVIEW	2
2	HYDROGEOLOGICAL CONDITIONS	2
2.1	GEOLOGY	2
2.2	SOIL	2
2.3	HYDROGEOLOGY	2
2.3.1	<i>Potential Surface Water Receptors</i>	2
2.3.2	<i>Potential Groundwater Receptors</i>	3
3	SITE CHARACTERIZATION SAMPLING METHODS	3
3.1	GENERAL SAMPLING METHODS	3
3.1.1	<i>Site Soil Sampling</i>	3
3.1.2	<i>Groundwater Sampling</i>	3
3.1.3	<i>Background Reference Samples</i>	3
3.2	FIELD SCREENING	4
3.3	DECONTAMINATION	4
3.4	CHAIN OF CUSTODY	4
3.5	DOCUMENTATION	4
4	QUALITY ASSURANCE / QUALITY CONTROL	1
4.1	DATA	1
4.2	CROSS-CONTAMINATION	1
5	SAMPLING DEVIATIONS	1
6	IMPLEMENTATION AND REPORTING SCHEDULE	1
7	POTENTIAL REMEDIATION ACTIVITIES	2

Tables

Table 1: Contact Information	1
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Appendices

- APPENDIX A – PROJECT LOCATION MAP
- APPENDIX B – HYDROLOGICAL RESOURCES MAP
- APPENDIX C – HYDROLOGIC DATA
- APPENDIX D – PROPOSED SOIL SAMPLING LOCATIONS

1 INTRODUCTION

D90 Energy, LLC. (D90) contracted Absaroka Energy and Environmental Solutions, LLC (AE₂), to prepare a Site Investigation Plan (Plan) for the abandonment of the Refuge to Mallard Production Line (Facility ID#: 480884). The Refuge to Mallard Production Line (Site) is located between the Refuge 0780 S16 Location (Facility ID# 451456) and Pintail 16 Location (Facility ID# 446527). The production line will be abandoned in place following the COGCC regulations stated in Rule 1105.

The following Plan provides an overview and detailed description of the activities to be performed as part of the site investigation, as well as site background, hydrogeology, and surface and groundwater receptors. This Plan also details the soil sampling to be conducted. Maps and other reference materials are also included.

1.1 Site Description and Location

The Refuge to Mallard Production Line is located approximately 4.3 miles northeast of the town of Coalmont, Colorado in Jackson County (**Appendix A**).

The Site location may be accessed from Coalmont by travelling east on CO Road 26 until Co Highway 14 is reached. Turn left (north) on Co Highway 14, and travel north approximately 1.93 miles to an unnamed lease road. Turn right (east) and travel approximately 0.96 miles, passing two facilities and crossing Grizzly Creek. Follow the road to the south after passing a third facility for approximately 0.45 miles. Turn left (east) on an unnamed lease road and follow to the first facility site approximately 0.26 miles. The line stretches between the facility to the end of the unnamed lease road (**Appendix A**).

1.2 Contact Information

Pertinent contact information regarding the site investigation is shown in Table 1.

Table 1: Contact Information.

<i>Contact</i>	<i>Person</i>	<i>Address</i>	<i>Phone No.</i>
Responsible Party	D90 Energy LLC	952 Echo Lane Suite 480 Houston, TX 77024	303-994-0000
Field Operations Manager	David Boyer	277 JCR 28 Coalmont, CO 80430	303-994-0000
Environmental Contractor	Absaroka Energy and Environmental Solutions, LLC	112 High Street Buffalo, WY 82834	720-352-5326
Landowner	Kohlmans OK Limited Partnership, C/O Ray Ranch	21536 State Hwy 14 Coalmont, CO 80480	970-846-4901

1.3 Historic Land Use

The Site is located in a rural setting within the Southern Rocky Mountain Physiographic Province. Historic land use for the area includes agriculture and grazing of pastureland by livestock. In addition, the land is currently being used for oil and gas production operations. Prior to oil and gas operations, the area had few uses aside from agriculture.

1.4 High Priority Habitat Review

An assessment of the 309e, 1202C and 1202D High Priority Habitat (HPH) areas from the Colorado Oil and Gas Conservation Commission (COGCC) indicate that the Site is within the Greater Sage Grouse Priority Habitat Management Area. The following HPH areas are within one mile of the surface hole location of the well: Greater Sage Grouse General Habitat Management Area, Greater Sage Grouse Undesignated Habitat, Greater Sage Grouse Priority Habitat Management Area, Greater Sage Grouse Lek Site, and Aquatic Sports Fish Management Waters.

2 HYDROGEOLOGICAL CONDITIONS

2.1 Geology

The surface geology of the Site is composed of the Eocene to Paleocene Coalmont formation. The Coalmont formation consists of fluvial and lacustrine sediments including claystone, coal seams, local conglomerate, and micaceous sandstone. It irregularly overlies the Pierre shale and underlies the North Park Formation.

2.2 Soil

Soil mapped by the Natural Resource Conservation Survey indicate the surface soil texture at the Site is primarily sandy loam. The primary soil series in the project area is mapped as the Fluetsch – Tiagos association. This series occurs at elevation of 8,000 to 9,000 feet, with a mean annual precipitation of 14-16 inches, a mean annual air temperature of 36 to 39 degrees Fahrenheit, a frost free period of 30-40 days, and are not considered to be prime farmland. They are classified as a valley bench/dry mountain loam. They are derived from calcareous sedimentary alluvium consisting of sandstone and shale. The series has a depth to restrictive features greater than 80 inches, a depth to water table greater than 80 inches, and are considered to be well drained soils.

2.3 Hydrogeology

2.3.1 Potential Surface Water Receptors

Surface water is present in the area in the form of ephemeral streams, floodplains, and small ponds and reservoirs (**Appendix B**). The closest permanent surface water feature to the Site is Grizzly Creek, a

tributary to the North Platte River, which is located approximately 1.1 miles from the Site. Numerous ditch systems are located in the vicinity of the project area, the closest being the Grizzly Ditch, located 0.3 miles from the project area. Irrigated freshwater emergent wetlands are located 0.2 miles from the project area, freshwater forested/shrub wetlands are located 0.54 miles from the project area, a freshwater pond is located 0.77 miles from the project area, and riverine wetlands are crossed by the production line.

2.3.2 Potential Groundwater Receptors

Three groundwater wells are located within one mile of the Site (**Appendix C**). Well permit number 312674 identifies a static water level of 100 feet below ground surface (BGS). Well permit number 312674 is located 48 feet upgradient and approximately 0.5 mile south of the Site. AE₂ estimates that groundwater at the site is approximately 20-50 feet BGS.

3 SITE CHARACTERIZATION SAMPLING METHODS

3.1 General Sampling Methods

3.1.1 Site Soil Sampling

Field screening will be conducted prior to collection of soil samples (**Appendix D**). This will be accomplished with olfactory and visual observations, probing using an electrical conductivity (EC) meter, and a calibrated Photoionization Detector (PID). Soil sampling will follow industry accepted sampling procedures. Soil samples will be collected with a soil bucket auger or stainless-steel trowel. Samples will be collected beneath each riser, in the soils adjacent to where the pipeline is sealed. Deeper samples may be collected separately if hydrocarbon and/or salinity impacts are readily detected during field screening. Soil will be transferred directly into soil sample containers provided by the laboratory. Each sample will be transferred immediately to a cooler and preserved with ice for transport to the laboratory. Sampling personnel will don nitrile gloves during the sampling activities; donning new gloves between each sample location to prevent cross-contamination. Each soil sample will be analyzed in accordance with Table 915-1. The COGCC clean-up concentrations for soil are provide in Table 915-1, including provisions for comparison to naturally occurring background levels for specific parameters.

3.1.2 Groundwater Sampling

Based on local water well data, groundwater is estimated to be over 20 feet BGS. Absaroka does not anticipate groundwater sampling to occur unless requested by the COGCC.

3.1.3 Background Reference Samples

One background sample will be collected for baseline comparative and reference purposes. The sample will be collected from an adjacent, upgradient or cross-gradient, unaffected area (approximate location

identified on the Sampling Map – **Appendix BD**). The background sample will be analyzed for the following constituents:

- Electrical conductivity
- Sodium absorption ratio (SAR)
- pH
- Boron
- Metals

3.2 Field Screening

Field screening will be conducted during the sampling effort to aid in determining if there is any contamination at the Site and determine its extent. An EC meter and a PID will be used to field screen soil sample locations. EC meter readings thresholds will be 4 mmhos/cm or within 5% of the background readings. PID thresholds will be 100 ppm. In addition, the PID readings will also be collected for background samples. The sample will be collected into a Ziploc bag and allowed to rest for one minute or as necessary depending on soil condition. After resting, the PID sampling probe will be used to puncture the head space of the Ziploc bag and collect a PID reading.

3.3 Decontamination

All sampling equipment will be decontaminated between each sample by first removing any remaining soil, then washing with an Alconox solution, then rinsing with distilled water. Equipment will be allowed to air dry prior to subsequent sampling. Sampling personnel will don nitrile gloves during the sampling activities, donning new gloves between each sample location.

3.4 Chain of Custody

Chain of Custody (COC) protocol will follow generally accepted methods. Sample containers will be sealed and placed on ice in coolers for shipment. Prior to shipping, the COC will be signed and dated by the sampler. The COC will be sealed in a Ziploc bag and taped to the inside of the cooler lid. The cooler is sealed and taped shut for shipment. Lab personnel, upon receipt of the coolers, removes the tape, breaks the cooler seal, retrieves the COC, and then fills in the appropriate lab receipt information and signs the document. Documentation of the completed COC is sent to AE₂ via email.

3.5 Documentation

Each sample location will be fully documented. At minimum, documentation includes the following items:

- Collector name
- Sample name
- Sample date/time
- Sample type (discreet, composite)
- PID reading
- EC reading
- Coordinates
- Photographs
- Visual/olfactory observations
- Soil description
- Other notes

To assist with the documentation effort, a GPS enabled digital device, sample log forms, and sample log table will be utilized to track and record data. Sample locations will be photo documented.

4 QUALITY ASSURANCE / QUALITY CONTROL

All sampling documentation will be reviewed for any errors or omissions prior to completing the field activities for each sampling location.

4.1 Data

Data collected for each sample will be documented by several methods. Each sample location will be documented using a digital device equipped with a GPS receiver. In addition, each sample will be documented on a sample log form. Finally, a sampling log table will be completed as samples are collected ensuring that all the required samples and attribute data are collected and recorded. Each sample location will also be photo-documented, and a photographic log will be prepared.

Sample log forms, log tables, and GPS waypoint data will be cross-checked daily to ensure accurate data.

4.2 Cross-contamination

To eliminate the possibility of cross-contamination of samples during the sampling activities, all sampling equipment will be decontaminated between each sample location. The decontamination procedures are discussed above in Section 3. In addition, sampling personnel will don new nitrile gloves for each sample to be collected.

5 SAMPLING DEVIATIONS

Additional sampling containers will be available in the event that additional sampling is warranted. Conditions that may warrant additional sampling include discovery of potentially contaminated soil areas, discovery of contamination at depths greater than anticipated, or discovery of significant differences in soil type/texture in areas across the site. Although not anticipated to be necessary, sampling containers for water samples will be available for collecting groundwater, if encountered.

6 IMPLEMENTATION AND REPORTING SCHEDULE

The site investigation will begin when D90 conducts abandonment of the Refuge to Mallard Production Line. Abandonment activities are anticipated to occur in the spring of 2022 after the ground has thawed. A follow-up report with the results of the site investigation will be submitted as soon as possible after activities have concluded. If determined necessary based on the site investigation results, a remediation design will be developed and implemented to address any confirmed contamination.

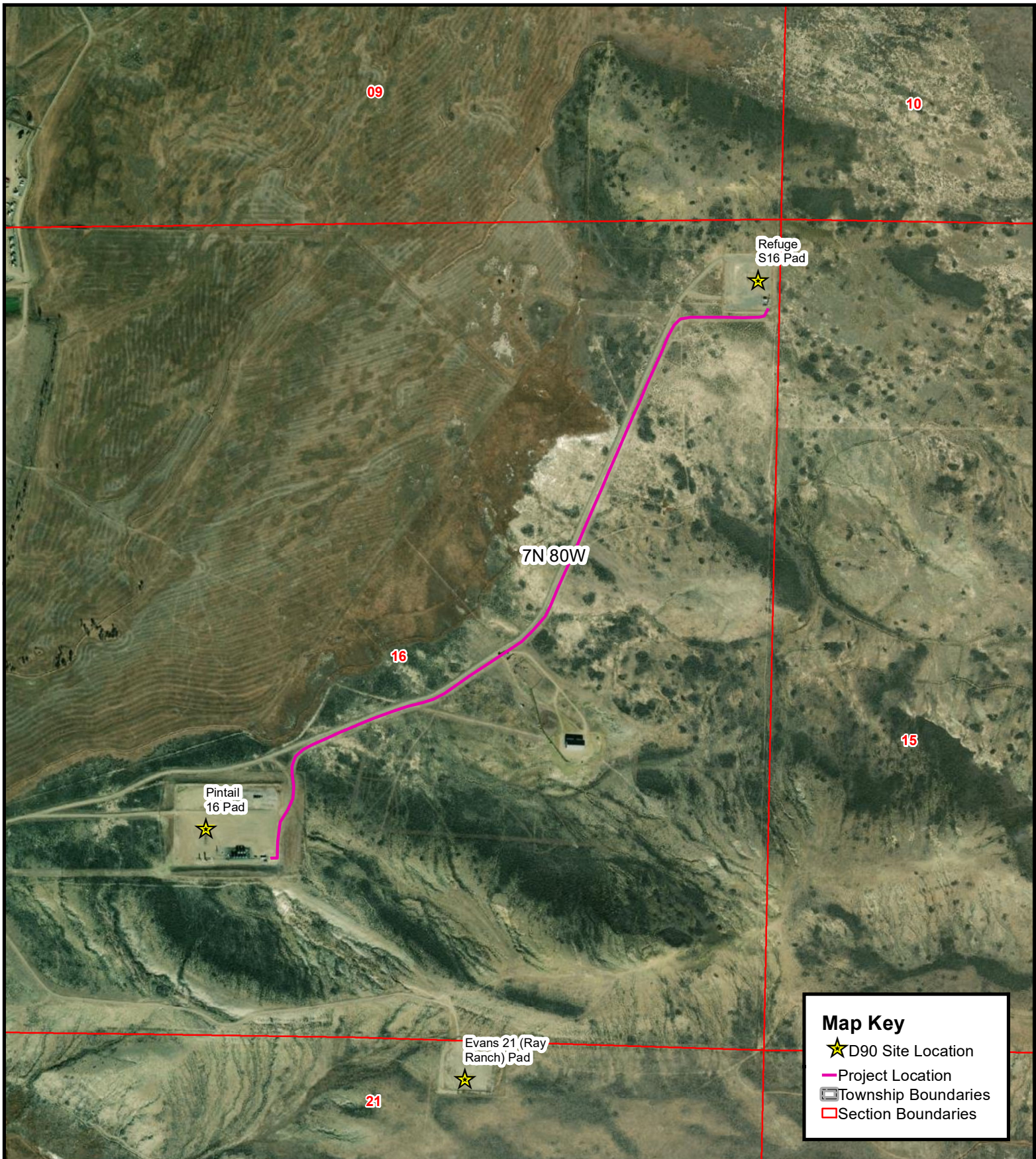
7 POTENTIAL REMEDIATION ACTIVITIES

Remediation activities for substantial impacts, if required, will likely involve excavation of impaired soils for transport to an approved disposal facility. Following excavation and removal of any impaired soils, confirmation sampling will be conducted to confirm successful remediation. Excavated areas will then be backfilled with clean soil as necessary and seeding of the remediated area to re-establish a proper seedbed will be conducted.

The results of any remediation activities will be summarized in a report along with confirmation soil sample data and submitted to the COGCC.

APPENDICES

Appendix A – Project Location Map



Map Key

- ★ D90 Site Location
- Project Location
- ▭ Township Boundaries
- ▭ Section Boundaries



112 High Street
Buffalo, Wyoming 82834
855.684.5891

www.absarokasolutions.com

D90.CO.0506.25

Refuge to Mallard Production Line Project Location Map - Aerial

Jackson County, State of Colorado

0 0.15 0.3 0.6 Miles

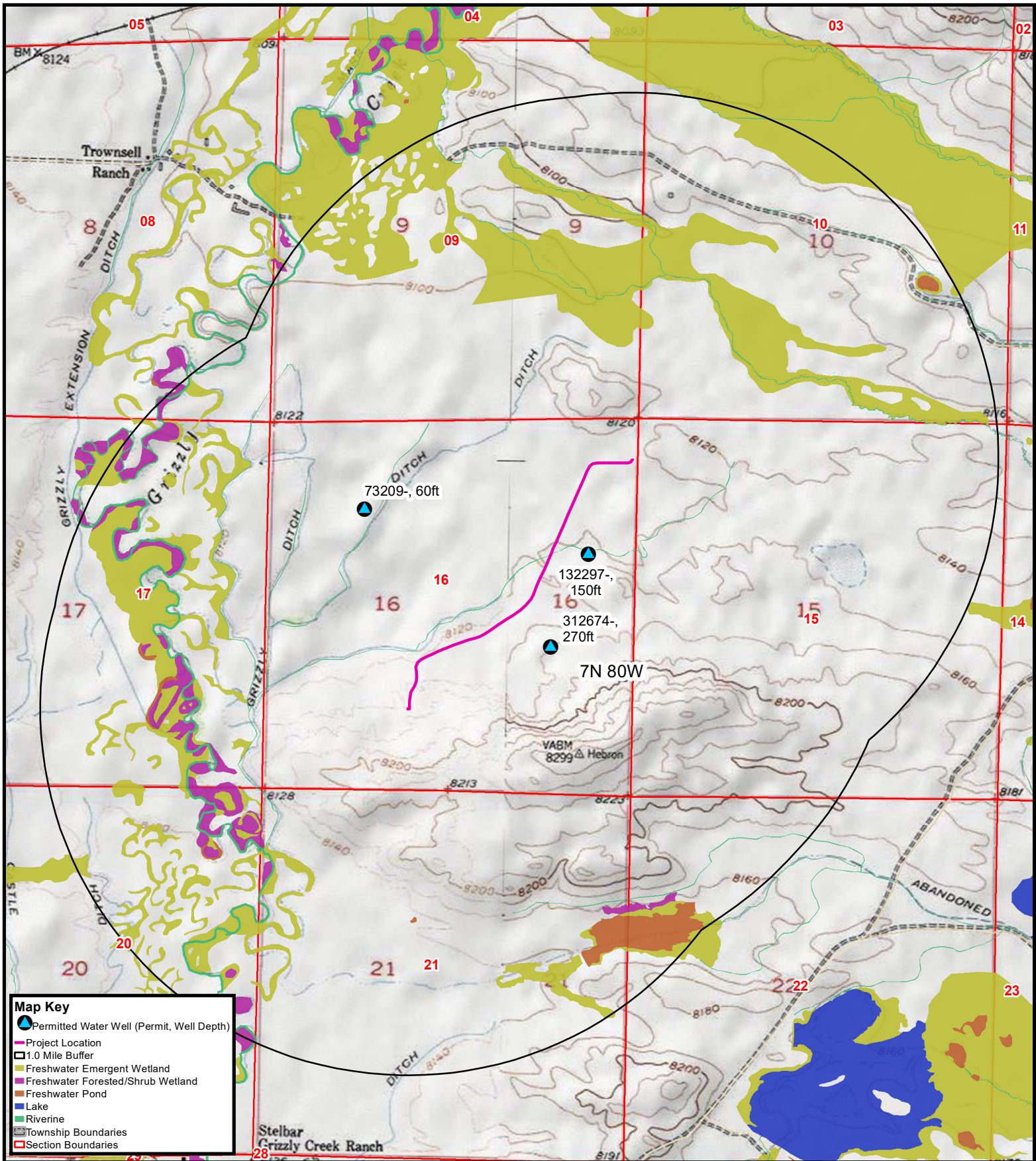
Coordinate System: WGS 1984 UTM Zone 13N



Date: 2/1/2022

Scale: 1:10,000

Appendix B – Hydrological Resources Map



Map Key

- Permitted Water Well (Permit, Well Depth)
- Project Location
- 1.0 Mile Buffer
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine
- Township Boundaries
- Section Boundaries



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D90.CO.0506.25

Refuge to Mallard Production Line Hydrologic Map

Jackson County, State of Colorado

0 0.325 0.65 1.3 Miles

Coordinate System: WGS 1984 UTM Zone 13N



Date: 2/1/2022

Scale: 1:22,000

Appendix C – Hydrologic Data

THIS FORM MUST BE
SUBMITTED PRIOR TO
THE EXPIRATION OF THE
PERMIT. TYPE OR
PRINT IN BLACK INK.

COLORADO DIVISION OF WATER RESOURCES

101 Columbine Bldg., 1845 Sherman St.

Denver, Colorado 80203

STATEMENT OF BENEFICIAL USE OF GROUND WATER
AMENDMENT OF EXISTING RECORD
LATE REGISTRATION
PERMIT NUMBER 73209

RECEIVED
MAY 24 72

DEC 17 '72

WATER RESOURCE
STATE ENGINEER
COLO.

WATER RESOURCES
STATE ENGINEER
COLO.

STATE OF COLORADO

COUNTY OF Jackson } SS.

THE AFFIANT(S) Kohlman Inc

whose address is Box 307 Walden Colo 80480

being duly sworn upon oath, deposes and says that he (they) is (are) the owner(s) of the well described hereon; the well is

located in the NE $\frac{1}{4}$ of the NW $\frac{1}{4}$ of Section 16, Township 7 N,
(N. or S.)

Range 80 W, 6 P.M. at distances of 1260 feet from the North section line
(E. or W.) (North or South)

and 1371 feet from the West section line; the total depth of the well is 60 feet; water from this well
(East or West)

was first applied to a beneficial use for the purpose(s) described herein on the 1 day of Sept, 1934

the maximum sustained pumping rate of the well is _____ gallons per minute, the pumping rate claimed hereby is 12

gallons per minute; the average annual amount of water to be diverted is _____ acre-feet; for which claim is hereby

made for _____ purpose(s); the legal description of the land on which the water

from this well is to be used is Livestock Water No irrigation

which totals _____ acres and which is illustrated on the map on the reverse side of this form; that this well was completed in compliance with the permit approved therefor; this statement of beneficial use of ground water is filed in compliance with law; he (they) has (have) read the statements made hereon; knows the content thereof; and that the same are true of his (their) knowledge.

Signature(s) Kohlman Inc L.J. Kohlman Pres

Subscribed and sworn to before me on this 22nd day of

May, 1972

My Commission expires: Dec 30, 1972

(Seal)

Carolyn Price
Notary Public

ACCEPTED FOR FILING IN THE OFFICE OF THE STATE ENGINEER OF

COLORADO ON THIS 1st DAY OF FEB., 1974

H. W. Erker

STATE ENGINEER

by Deputy State Engineer
WHITE COPY FOR DIVISION OF WATER RESOURCES
PINK COPY FOR WELL OWNER

FOR OFFICE USE ONLY

Prior. Date _____, 19____

Well Use 2

____ $\frac{1}{4}$, ____ $\frac{1}{4}$, ____ $\frac{1}{4}$, Sec. _____

T. _____, R. _____, P.M.

Yield _____ W.D. 47

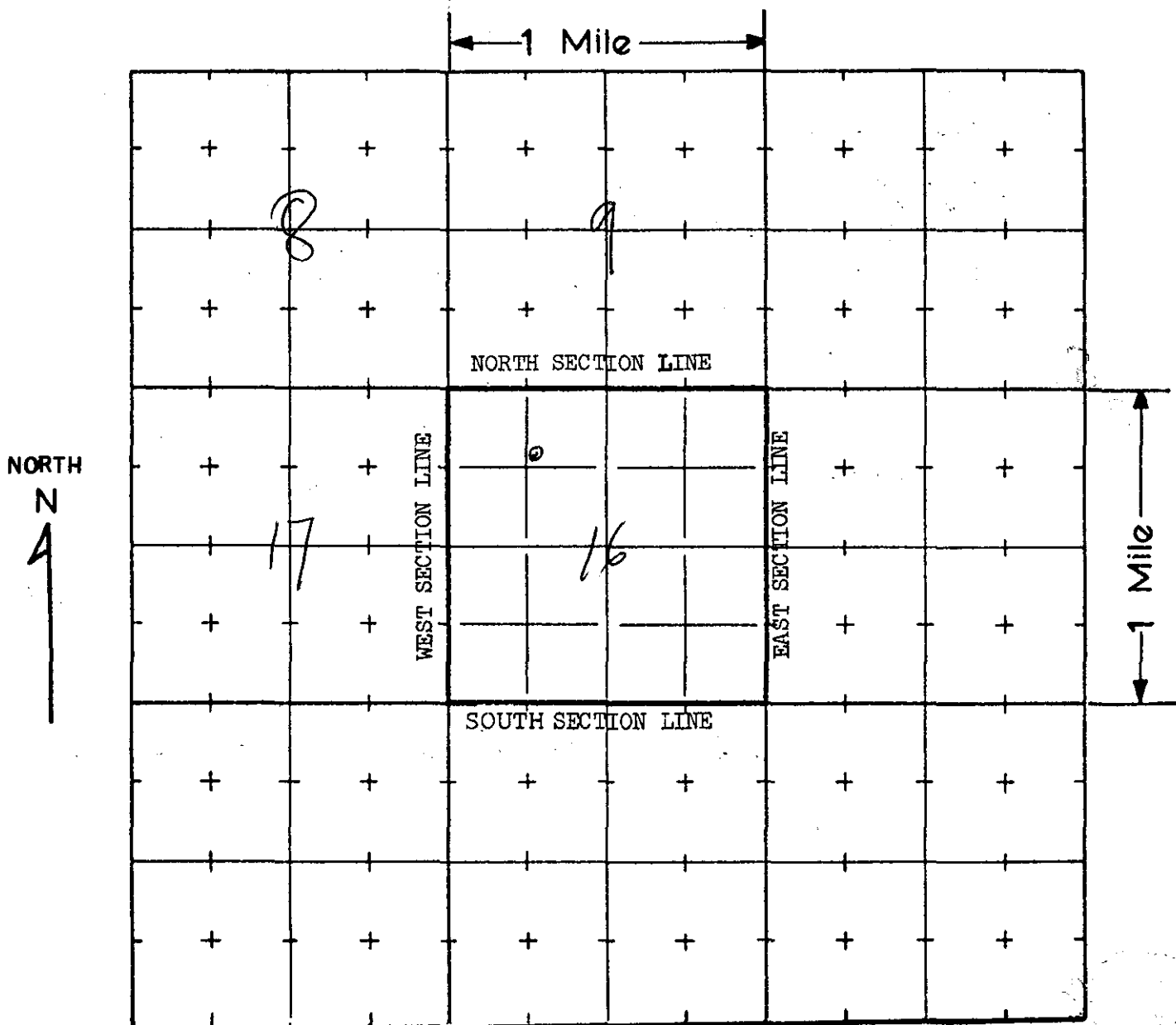
Co. 29

Index 6

6-536-73

THE LOCATION OF THE WELL MUST BE SHOWN AND THE AREA ON WHICH THE WATER IS USED MUST BE SHADED OR CROSS-HATCHED ON THE DIAGRAM BELOW.

This diagram represents nine (9) sections. Use the **CENTER SQUARE** (one section) to indicate the location of the well, if possible.



THE SCALE OF THE DIAGRAM IS TWO INCHES EQUALS ONE-MILE

Meter Serial No. _____ ☐ Flow Meter ☐ Electric Meter ☐ Fuel Meter

Owner of land on which
water is being used _____

WATER EQUIVALENTS TABLE (Rounded Figures)

An acre-foot covers 1 acre of land 1 foot deep.

1 cubic foot per second (cfs) . . . 449 gallons per minute (gpm).

1 acre-foot . . . 43,560 cubic feet . . . 325,900 gallons.

1,000 gpm pumped continuously for one day produces 4.42 acre-feet.

100 gpm pumped continuously for one year produces 160 acre-feet.

TYPE OR
PRINT IN BLACK INK
COPY OF ACCEPTED
STATEMENT MAILED
ON REQUEST.

COLORADO DIVISION OF WATER RESOURCES

818 Centennial Bldg., 1313 Sherman St.
Denver, Colorado 80203

RECEIVED
SEP 28 1983

AFFIDAVIT

STATE OF COLORADO

COUNTY OF JACKSON

SS.

X

STATEMENT OF BENEFICIAL USE OF GROUND WATER

AMENDMENT OF EXISTING RECORD

LATE REGISTRATION

PERMIT NUMBER 132297

LOCATION OF WELL

THE AFFIANT(S) Leo Kohlman

whose mailing Box 307
address is

County JACKSON

City WALDEN, COLO. 80480
(STATE) (ZIP)

SE 1/4 of the NE 1/4, Section 16
Twp. 7 N Rng. 80 W 6th P M
(N OR S) (E OR W)

being duly sworn upon oath, deposes and says that he (they) is (are) the owner(s) of the well described hereon; the well is located as described above, at distances of 1948 feet from the N section line and 657 feet from the E section line; water from this well was first applied to a beneficial use for the purpose(s) described herein on the 13th day of September, 1983; the maximum sustained pumping rate of the well is 15 gallons per minute, the pumping rate claimed hereby is 15 gallons per minute; the total depth of the well is 150 feet; the average annual amount of water to be diverted is 1.5 acre-feet; for which claim is hereby made for Livestock and Wildlife watering.

purpose(s); the legal description of the land on which the water from this well is used is

A 35 acre tract in the SE 1/4, NE 1/4, Sec 16, T 7, R 80 W.

of which

0

acres are irrigated and which is illustrated on the map on the reverse side of this form; that this well was completed in compliance with the permit approved therefor; this statement of beneficial use of ground water is filed in compliance with law; he (they) has (have) read the statements made hereon; knows the content thereof; and that the same are true of his (their) knowledge.

(COMPLETE REVERSE SIDE OF THIS FORM)

Signature(s) Leo J. Kohlman

Subscribed and sworn to before me on this 27th day of September, 1983

My Commission expires: 1-30-86

Sue Donnell
Walden, CO 80480
NOTARY PUBLIC

ACCEPTED FOR FILING BY THE STATE ENGINEER OF COLORADO
PURSUANT TO THE FOLLOWING CONDITIONS:

ACCEPTED

Robert A. Langenbaugh

Assistant

STATE ENGINEER

MAR 12 1984
DATE

BY

FOR OFFICE USE ONLY

Court Case No.

Prior. Mo. Day Yr.

Div. 6 Cty. 29

Sec. 1/4 1/4 1/4

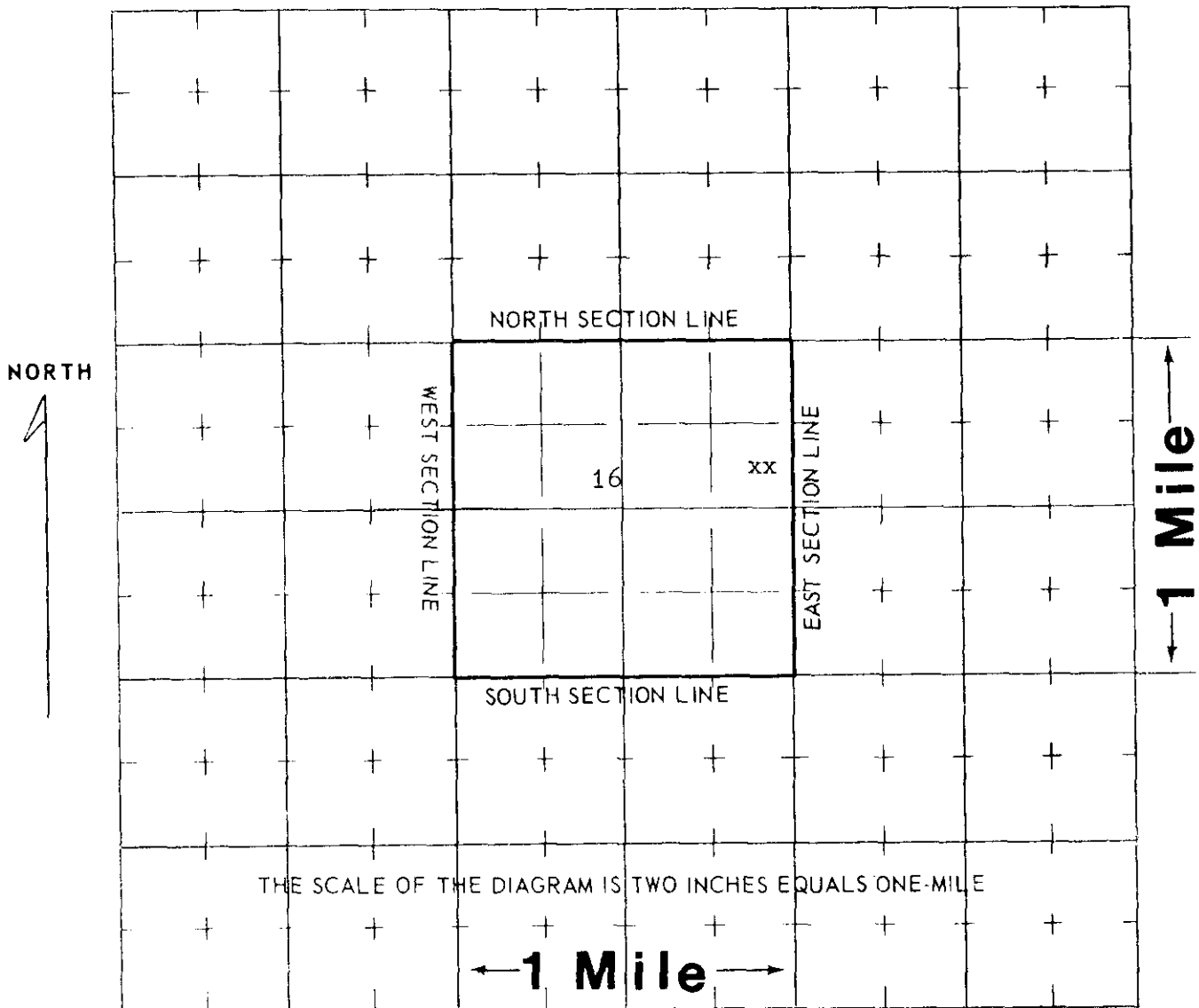
Well Use 2

Dist. 47 Basin Mon. Dis.

Well drilled by SELF. Lic. No. _____
 Permanent None- Artesian Flow
 Pump installed by _____ Lic. No. _____
 Meter Serial No. _____ ☐ Flow Meter Date Installed _____
 Owner of land on which Leo Kohlman.
 water is being used _____

THE LOCATION OF THE WELL MUST BE SHOWN AND FOR LARGE CAPACITY IRRIGATION WELLS THE AREA ON WHICH THE WATER IS USED MUST BE SHADED OR CROSS-HATCHED ON THE DIAGRAM BELOW.

This diagram represents nine (9) sections. Use the **CENTER SQUARE** (one section) to indicate the location of the well, if possible.



WATER EQUIVALENTS TABLE (Rounded Figures)

An acre-foot covers 1 acre of land 1 foot deep.
 1 cubic foot per second (cfs) . . . 449 gallons per minute (gpm).
 1 acre-foot . . . 43,560 cubic feet . . . 325,900 gallons.
 1,000 gpm pumped continuously for one day produces 4.42 acre-feet.
 100 gpm pumped continuously for one year produces 160 acre-feet.

**(WHITE AND PINK COPY TO BE FILED WITH THE STATE ENGINEER
 PINK COPY WILL BE RETURNED TO OWNER)**

COLORADO DIVISION OF WATER RESOURCES

1313 Sherman Street - Room 818
Denver, Colorado 80203

WELL COMPLETION AND PUMP INSTALLATION REPORT

PERMIT NUMBER 132297

RECEIVED

MAR - 7 1984

WATER RESOURCES
ENGINEER
PRO.

THIS FORM MUST BE SUBMITTED
WITHIN 60 DAYS OF COMPLETION
OF THE WORK DESCRIBED HERE-
ON. TYPE OR PRINT IN BLACK
INK.

WELL OWNER Leo Kohlman

ADDRESS Box 307, Walden, Colo. 80480

DATE COMPLETED Sept. 13th, 19 83

S E $\frac{1}{4}$ of the N E $\frac{1}{4}$ of Sec. 16
T. 7 N. R. 80 W. 6 th. P.M.

HOLE DIAMETER

0 in. from to 150 ft.

 in. from to ft.

 in. from to ft.

DRILLING METHOD Rotary

CASING RECORD: Plain Casing

Size 4" & kind pvc from 0 to 75" ft.

Size & kind from to ft.

Size & kind from to ft.

Perforated Casing

Size 4" & kind PVC from 75 to 150 ft.

Size & kind from to ft.

Size & kind from to ft.

GROUTING RECORD

Material Cement

Intervals 0 to 12'

Placement Method Hand

GRAVEL PACK: Size

Interval

TEST DATA

Date Tested Sept. 13, 19 83

Static Water Level Prior to Test A $\frac{1}{2}$ surface ft.

Type of Test Pump Centrifugal

Length of Test 1 Hr.

Sustained Yield (Metered) 15 GPM

Final Pumping Water Level 8'

WELL LOG

From	To	Type and Color of Material	Water Loc.
0	4	Surface Dirt	100'
4	24	Yellow Clay	
24	60	Grey Shale	
60	100	Blue Shale	
100	150	Sand and Gravel	
TOTAL DEPTH <u>150</u>			

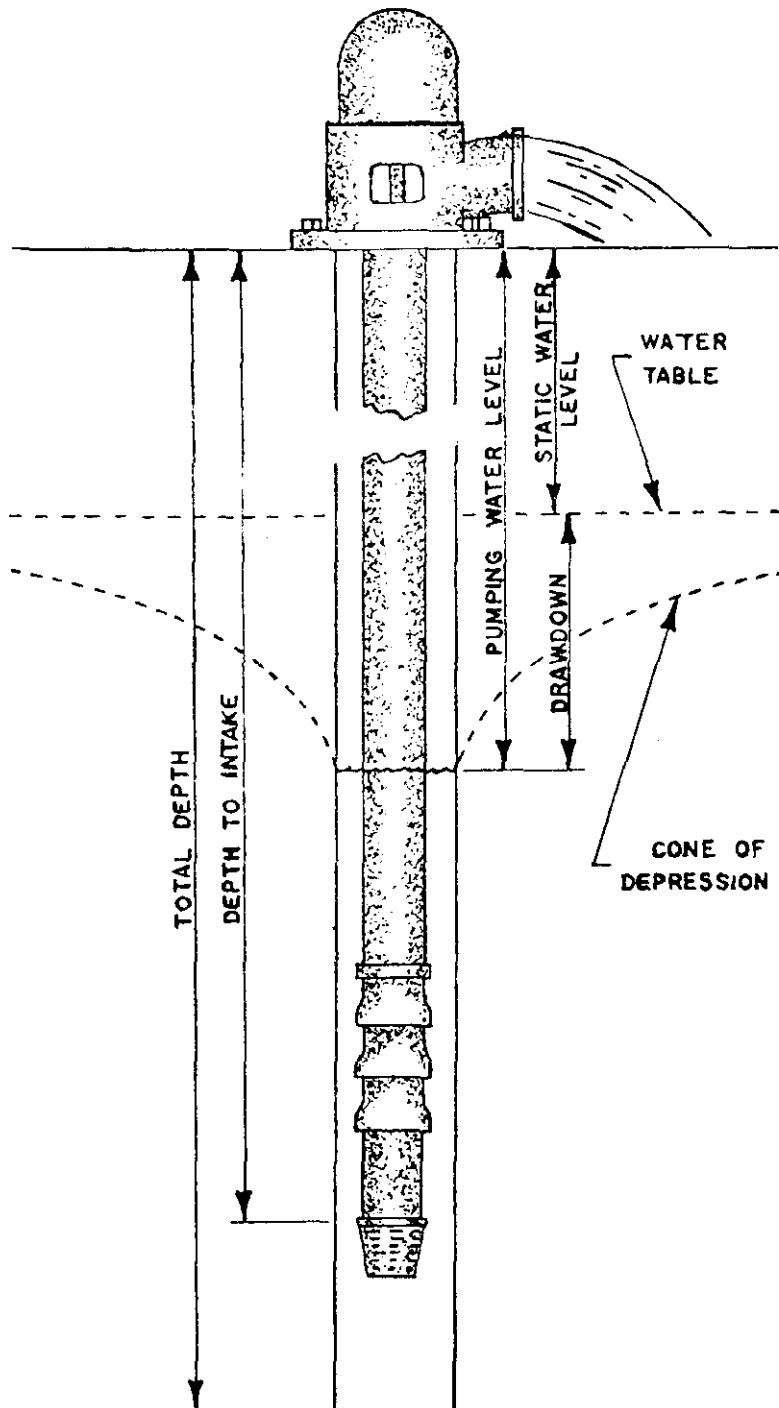
Use additional pages necessary to complete log.

PUMP INSTALLATION REPORT

Pump Make NONE ARTESIAN WELL
 Type _____
 Powered by _____ HP _____
 Pump Serial No. _____
 Motor Serial No. _____
 Date Installed _____
 Pump Intake Depth _____
 Remarks _____

WELL TEST DATA WITH PERMANENT PUMP

Date Tested _____
 Static Water Level Prior to Test _____
 Length of Test _____ Hours
 Sustained yield (Metered) _____ GPM
 Pumping Water Level _____
 Remarks This well flows @ 20 Gal. per Hour.



CONTRACTORS STATEMENT

The undersigned, being duly sworn upon oath, deposes and says that he is the contractor of the well or pump installation described hereon; that he has read the statement made hereon; knows the content thereof, and that the same is true of his own knowledge.

Signature Leo Kohlman License No. SELF
 State of Colorado, County of Jackson SS
 Subscribed and sworn to before me this 6th day of March, 19 84.
 My Commission expires: 6-4, 19 87.
 Notary Public Frederic P. Howard
Box 611, Wenden, CO

FORM TO BE MADE OUT IN QUADRUPLICATE: WHITE FORM must be an original copy on both sides and signed. WHITE AND GREEN copies must be filed with the State Engineer. PINK COPY is for the Owner and YELLOW COPY is for the Driller.

COLORADO DIVISION OF WATER RESOURCES
 818 Centennial Bldg., 1313 Sherman St., Denver, Colorado 80203

RECEIVED

AUG 16 1983

RECEIVED

AUG 08 1983

WATER RESOURCES
STATE - FM

PERMIT APPLICATION FORM

Application must be complete where applicable. Type or print in **BLACK INK**. No overstrikes or erasures unless initialed.

☒ A PERMIT TO USE GROUND WATER
☒ A PERMIT TO CONSTRUCT WELLS
☒ A PERMIT TO INSTALL A PUMP

() REPLACEMENT FOR NO. _____

() OTHER _____

WATER COURT CASE NO. _____

(1) APPLICANT - mailing address

NAME Leo Kohlman
 STREET Box 307
 CITY Walden Colo. 80480
 (State) (Zip)
 TELEPHONE NO. 303-723-4229

FOR OFFICE USE ONLY: DO NOT WRITE IN THIS COLUMN

Receipt No. 3826 SB1

Basin _____ Dist. _____

CONDITIONS OF APPROVAL

This well shall be used in such a way as to cause no material injury to existing water rights. The issuance of the permit does not assure the applicant that no injury will occur to another vested water right or preclude another owner of a vested water right from seeking relief in a civil court action.

1) APPROVED PURSUANT TO CRS 1973, 37-92-602 (3)
 (b) (11) AS THE ONLY WELL ON A TRACT OF LAND
 DESCRIBED AS 35 ACRES SE 1/4 NE 1/4, SEC.
16, T. 7 N., R. 80 W., 6 P.M.

APPROVED PURSUANT TO CRS 1973, 37-92-602
 FOR THE WATERING OF LIVESTOCK ON A FARM
 OR RANCH.

(2) LOCATION OF PROPOSED WELL

County Jackson
S.E. 1/4 of the N.E. 1/4, Section 16
7 N 80 W 6th. P.M.
 (N, S) (E, W)

(3) WATER USE AND WELL DATA

Proposed maximum pumping rate (gpm) 15
 Average annual amount of ground water to be appropriated (acre-feet): 1.5
 Number of acres to be irrigated: 0
 Proposed total depth (feet): 150
 Aquifer ground water is to be obtained from: _____

Owner's well designation _____

GROUND WATER TO BE USED FOR:

() HOUSEHOLD USE ONLY - no irrigation (0)
 () DOMESTIC (1) () INDUSTRIAL (5)
 (X) LIVESTOCK (2) () IRRIGATION (6)
 () COMMERCIAL (4) () MUNICIPAL (8)
 () OTHER (9) _____

DETAIL THE USE ON BACK IN (11)

(4) DRILLER

Name Self:
 Street _____
 City _____
 (State) (Zip)
 Telephone No. _____ Lic. No. _____

APPLICATION APPROVED

PERMIT NUMBER 132297

DATE ISSUED AUG 24 1983

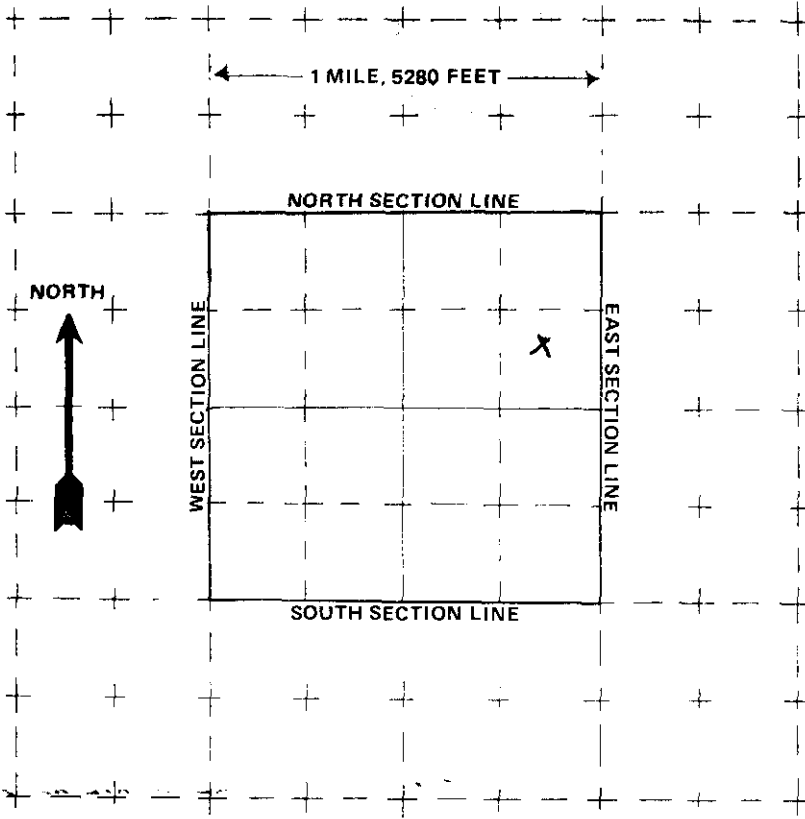
EXPIRATION DATE AUG 24 1985

Robert C. Langenbaugh
 (STATE ENGINEER)

BY M. P. Stiffman

I.D. 6-47 COUNTY 29

(5) **THE LOCATION OF THE PROPOSED WELL** and the area on which the water will be used must be indicated on the diagram below. Use the CENTER SECTION (1 section, 640 acres) for the well location.



The scale of the diagram is 2 inches = 1 mile
Each small square represents 40 acres.

WATER EQUIVALENTS TABLE (Rounded Figures)

An acre-foot covers 1 acre of land 1 foot deep
1 cubic foot per second (cfs) ... 449 gallons per minute (gpm)
A family of 5 will require approximately 1 acre-foot of water per year.
1 acre-foot ... 43,560 cubic feet ... 325,900 gallons.
1,000 gpm pumped continuously for one day produces 4.42 acre-feet.

(6) **THE WELL MUST BE LOCATED BELOW** by distances from section lines.

1948 *dk* ft. from North sec. line
(north or south)
657 ft. from East sec. line
(east or west)

LOT _____ BLOCK _____ FILING # _____

SUBDIVISION _____

(7) **TRACT ON WHICH WELL WILL BE LOCATED** Owner: Leo Kohlman

No. of acres 40 Will this be the only well on this tract? Yes

(8) **PROPOSED CASING PROGRAM**

Plain Casing

4 in. from _____ ft. to 75 ft.
3 in. from _____ ft. to 100 ft.

Perforated casing

4 in. from 75 ft. to 150 ft.
_____ in. from _____ ft. to _____ ft.

(9) **FOR REPLACEMENT WELLS** give distance and direction from old well and plans for plugging it:

(10) **LAND ON WHICH GROUND WATER WILL BE USED:**

Owner(s): L.K. No. of acres: 40

Legal description: S. E $\frac{1}{4}$ of NE $\frac{1}{4}$, Section 16, T7N, R80W of 6th P.M.

(11) **DETAILED DESCRIPTION** of the use of ground water: Household use and domestic wells must indicate type of disposal system to be used.

(12) **OTHER WATER RIGHTS** used on this land, including wells. Give Registration and Water Court Case Numbers.

Type or right
NONE

Used for (purpose)

Description of land on which used

(13) **THE APPLICANT(S) STATE(S) THAT THE INFORMATION SET FORTH HEREON IS TRUE TO THE BEST OF HIS KNOWLEDGE.**

Leo Kohlman
SIGNATURE OF APPLICANT(S)

97
COLORADO DIVISION OF WATER RESOURCES
818 Centennial Bldg., 1313 Sherman St.,
Denver; Colorado 80203

FROM: MEL WALLEY
DATE: 8-10-83
PHONE: (303) 866-3587

APPLICANT ☒

WELL DRILLER ()

ATTORNEY ()

RE: Well Permit Application for an exempt well.

We are sorry for the delay and inconvenience, but your application for a well permit is being returned for the reason(s) indicated below. The additional data and corrections, which we are requesting will aid us in evaluating your application. Prompt completion or correction of ALL items checked in RED and the immediate return of the application to this office will expedite its processing. Thank you for your attention.

PLEASE INITIAL ALL CHANGES. PLEASE TYPE OR PRINT IN BLACK INK.

- () Statute requires a \$_____ fee for this type of application. Please return the application with required fee.
- () The well location must be designated by the county and the 1/4 of 1/4, Section, Township, Range and P.M. (Item 2.)
- () Distances from section lines must be shown. (Item 6)
- () The 1/4 of 1/4 section (Item 2) does not agree with distances from section lines (Item 6). Distances place well in _____ 1/4 _____ 1/4.
- () For a DOMESTIC WELL no more than one (1) acre of lawn or gardens can be irrigated (Item 3).
- () For a HOUSEHOLD USE ONLY WELL, no irrigation of lawns or gardens can be permitted (Items 3 and 11).
- () Please indicate the proposed total depth (Item 3).
- () If this well is to be used for Household Purposes Only, with no lawn or garden watering, please indicate on the application under "Ground Water to be Used For:" (Item 3.) Do not indicate HOUSEHOLD USE ONLY and DOMESTIC as they are different.
- () The proposed casing program must be completed (Item 8).
- () The existing well must be plugged and abandoned according to rules and regulations. Please include the distance and direction from the old well (Item 9).
- () If this well is to be the only well on 35 acres or more, please describe the acreage on the back of the application under LEGAL DESCRIPTION in Item 10. PLEASE ATTACH FULL METES AND BOUNDS DESCRIPTION OR SURVEY.
- () Please indicate the specific use intended for the water, and the type of disposal system to be used, or a copy of the disposal permit (Item 11).
- () Please complete Item(s) _____ where checked in red.
- () Signature of applicant is required on application (Item 13).
- () Please provide a copy of a tax receipt, a surveyor's plat, or a warranty deed to show ownership of the property described in Item 10. This should give the date when the land was subdivided.

X Other: Items 2, 5, 6, & 10 should agree. Correct
as necessary.



COLORADO

Division of Water Resources

Department of Natural Resources

WELL PERMIT NUMBER 312674-

RECEIPT NUMBER 3690544

ORIGINAL PERMIT APPLICANT(S)

KOHLMANS OK LTD PARTNERSHIP

APPROVED WELL LOCATION

Water Division: 6 Water District: 47

Designated Basin: N/A

Management District: N/A

County: JACKSON

Parcel Name: N/A

Physical Address: N/A

NE 1/4 SE 1/4 Section 16 Township 7.0 N Range 80.0 W Sixth P.M.

Well to be constructed on specified tract of land

PERMIT TO CONSTRUCT A NEW WELL

ISSUANCE OF THIS PERMIT DOES NOT CONFER A WATER RIGHT

CONDITIONS OF APPROVAL

- 1) This well shall be used in such a way as to cause no material injury to existing water rights. The issuance of this permit does not ensure that no injury will occur to another vested water right or preclude another owner of a vested water right from seeking relief in a civil court action.
- 2) The construction of this well shall be in compliance with the Water Well Construction Rules 2 CCR 402-2, unless approval of a variance has been granted by the State Board of Examiners of Water Well Construction and Pump Installation Contractors in accordance with Rule 18.
- 3) Approved pursuant to CRS 37-92-602(3)(b)(II)(A) as the only well on a tract of land of 40.00 acres described as the NE 1/4 of the SE 1/4, Sec. 16, Twp. 7 N, Rng. 80 W, S P.M., Jackson County.
- 4) The use of ground water from this well is limited to the watering of livestock on a farm or ranch.
- 5) The pumping rate of this well shall not exceed 15 GPM.
- 6) Pursuant to Rule 6.2.3 of the Water Well Construction Rules, the well construction contractor shall submit the as-built well location on work reports required by Rule 17.1 within 60 days of completion of the well. The measured location must be accurate to 200 feet of the actual location. The location information must include a GPS location (UTM coordinates) pursuant to the Division of Water Resources' guidelines.

NOTE: This permit will expire on the expiration date unless the well is constructed by that date. A Well Construction and Yield Estimate Report (GWS-31) must be submitted to the Division of Water Resources to verify the well has been constructed. An extension of the expiration date may be available. Contact the DWR for additional information or refer to the extension request form (GWS-64) available at: <http://www.water.state.co.us>

Issued By GEOFFREY DAVIS

Date Issued: 2/25/2019

Expiration Date: 2/25/2021

COLORADO DIVISION OF WATER RESOURCES
DEPARTMENT OF NATURAL RESOURCES
1313 SHERMAN ST., Ste 821, DENVER, CO 80203
Main: (303) 866-3581 dwrpermitsonline@state.co.us

RESIDENTIAL Note: Also use this form to apply for livestock watering
Water Well Permit Application
Review form instructions prior to completing form.
Hand completed forms must be completed in black or blue ink or typed.

1. Applicant Information

Name(s)

Kohlman's OK Limited Partnership d/b/a Ray Ranch

Mailing address

21536 State Highway 14

City

Walden

State

CO

Zip code

80480

Telephone (w/area code)

(970) 723 8383

E-mail

gjranch@gmail.com

2. Type Of Application (check applicable boxes)

- ☒ Construct new well
☐ Replace existing well
☐ Use existing well
☐ Change or increase use
☐ Change source (aquifer)
☐ Reapplication (expired permit)
☐ Rooftop precip. collection
☐ Other:

3. Refer To (if applicable)

Well permit #

Water Court case #

Designated Basin Determination #

Well name or #

Ray Ranch Barn #2 (new)

4. Location Of Proposed Well (Important! See Instructions)

County

Jackson

NE

1/4 of the SE

1/4

Section

16

Township

7

N or S

☒ N ☐ S

Range

80

E or W

☐ E ☒ W

Principal Meridian

6th PM

Distance of well from section lines (section lines are typically not property lines)

Ft. from ☐ N ☐ S

Ft. from ☐ E ☐ W

For replacement wells only - distance and direction from old well to new well

feet

Direction

Well location address (Include City, State, Zip)

☒ Check if well address is same as in item 1.

Optional: GPS well location information in UTM format. GPS unit settings are as follows:

Format must be UTM

☐ Zone 12 or ☒ Zone 13

Units must be Meters

Datum must be NAD83

Unit must be set to true north

Was GPS unit checked for above? ☐ YES

Easting: 383791

Northing: 4492582

Remember to set Datum to NAD83

5. Parcel On Which Well Will Be Located

(You must attach a current deed for the subject parcel)

A. You must check and complete one of the following:

- ☐ Subdivision: Name _____
Lot _____ Block _____ Filing/Unit _____
☐ County exemption (attach copy of county approval & survey)
Name/# _____ Lot # _____
☐ Parcel less than 35 acres, not in a subdivision attach a deed with metes & bounds description recorded prior to June 1, 1972, and current deed
☐ Mining claim (attach copy of deed or survey) Name/#: _____
☒ Square 40 acre parcel as described in Item 4
☐ Parcel of 35 or more acres (attach metes & bounds description or survey)
☐ Other: (attach metes & bounds description or survey)

B. # of acres in parcel

40

C. Are you the owner of this parcel?

☒ YES ☐ NO

D. Will this be the only well on this parcel? ☒ YES ☐ NO (if no - list other wells)

E. State Parcel ID# (optional):

Office Use Only

Form GWS-44 (7/2012)

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FEB 12 2019

WATER RESOURCES
STATE ENGINEER
COLO

6. Use Of Well (check applicable boxes)

See instructions to determine use(s) for which you may qualify

- ☐ A. Ordinary household use in one single-family dwelling (no outside use)
☐ B. Ordinary household use in 1 to 3 single-family dwellings:
Number of dwellings: _____
☐ Home garden/lawn irrigation, not to exceed one acre:
area irrigated _____ sq. ft. ☐ acre
☐ Domestic animal watering - (non-commercial)
☒ C. Livestock watering (on farm/ranch/range/pasture)

7. Well Data (proposed)

Maximum pumping rate

10 gpm

Annual amount to be withdrawn

~ 1.0

acre-feet

Total depth

180

feet

Aquifer

8. Water Supplier

Is this parcel within boundaries of a water service area? ☐ YES ☒ NO

If yes, provide name of supplier:

9. Type Of Sewage System

- ☐ Septic tank / absorption leach field
☐ Central system: District name: _____
☐ Vault: Location sewage to be hauled to: _____
☒ Other (explain) NO Sewage

10. Proposed Well Driller License #(optional):

11. Sign or Enter Name of Applicant(s) or Authorized Agent

The making of false statements herein constitutes perjury in the second degree, which is punishable as a class 1 misdemeanor pursuant to C.R.S. 24-4-104 (13)(a). I have read the statements herein, know the contents thereof and state that they are true to my knowledge.

Sign or enter name(s) of person(s) submitting application

Date (mm/dd/yyyy)

02.10.2019

If signing print name and title

Gregory Ray, Partner

Office Use Only

USGS map name

DWR map no.

Surface elev.

Critical
> 35 ACRES
RULE 6.2.3

Receipt area only

AQUAMAP ☒

WE ☒

WR ☒

CWCB ☒

TOPO ☒

MYLAR ☒

885 oilgas ☒

Transaction #: 3690544

Date: 2/12/2019 2:10:21 PM

Transaction Total: \$100.00

CHECK #15940 \$100.00

DIV 6 WD 47 BA MD

Recorded at 3:15 P.M. AUGUST 25, 1994 Fee \$10.00

BOOK 172 PAGE 976

Reception NO. 82984 Sherry J. Wofford, Jackson County Recorder

WARRANTY DEED

THIS DEED, Made this 25th day of August, 1994 between LEO J. KOHLMAN and GRACE ANABEL KOHLMAN, d/b/a, Kohlman, a General Partnership of the County of Jackson and State of Colorado, grantor, and KOHLMAN'S O.K. LIMITED PARTNERSHIP, A Colorado Limited Partnership, whose legal address is P. O. Box 307, Walden, Colorado 80480 of the County of Jackson and State of Colorado, grantee.

WITNESSETH, that the grantor for and in consideration of the sum of good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, has granted, bargained, sold and conveyed, and by these presents does grant, bargain, sell, convey and confirm, unto the grantee, its heirs and assigns forever, all the real property together with improvements, if any, situate, lying and being in the County of Jackson and State of Colorado described as follows:

Township 7 North Range 80 West of the 6th P.M.

Section 4: W $\frac{1}{4}$ E $\frac{1}{4}$, SE $\frac{1}{4}$ SE $\frac{1}{4}$, W $\frac{1}{4}$

Section 5: E $\frac{1}{4}$, E $\frac{1}{4}$ W $\frac{1}{4}$

Section 8: E $\frac{1}{4}$, E $\frac{1}{4}$ W $\frac{1}{4}$, W $\frac{1}{4}$ SW $\frac{1}{4}$, SW $\frac{1}{4}$ NW $\frac{1}{4}$

Section 9: All

Section 16: All

Section 17: N $\frac{1}{4}$

Township 8 North Range 80 West of the 6th P.M.

Section 32: S $\frac{1}{4}$ SE $\frac{1}{4}$, NE $\frac{1}{4}$ SE $\frac{1}{4}$, SE $\frac{1}{4}$ SW $\frac{1}{4}$

Section 33: S $\frac{1}{4}$

Jackson County, State of Colorado.

TOGETHER WITH:

- (A) All buildings and improvements situate thereon;
- (B) Any and all Bureau of Land Management grazing rights and privileges of any kind or character, appurtenant thereto, specifically but not by way of limitation, some part or portion of the following:
 - (1) 795 A.U.M.'s in Allotment No. 07096
- (C) All water rights, headgates and ditches appurtenant thereto, including but not limited to:

Peterson Ditch No. 2 = 1/2 of Priority #7 for 1.5 cfs.

Peterson Ditch No. 2 = All of Court #W1428-73, which designates the headgate of the Big Grizzly Ditch as an alternate point of diversion for 2.25 cfs of Priority #7.

Peterson Ditch No. 2 = 1/2 of Court #W50-70 for 3.5 cfs.

Big Grizzly Ditch = All of Priority #25 for 10 cfs.

Big Grizzly Ditch = All of Priority #126/140 for 20 cfs.

Big Grizzly Ditch = All of Court #W52-70 for 20 cfs.

Marr Ditch No. 2 = All of Priority #39 for 10 cfs.

Marr Ditch No. 2 = All of Court #W49-70 for 12 cfs.

Mutual Ditch = 36 2/3 cfs of Priority #77 for 100 cfs.

Mutual Ditch = 36 2/3% of Court #W48-70 for 40 cfs.

Mutual Ditch = 36 2/3% of Court #58CW116 for 10 cfs.

Kohlman Well No. 1 = All of Court #W536-73 for .027 cfs.

Kohlman Well No. 2 = All of Court #W536-73 for .022 cfs.

Best Copy Available

BOOK 172 PAGE 977

Kohlman Well No. 3 = All of Court #W536-73 for .031 cfs.
Kohlman Well No. 4 = All of Court #W536-73 for .027 cfs.
Kohlman Well No. 5 = All of Court #W536-73 for .022 cfs.
Kohlman Well No. 6 = All of Court #W536-73 for .027 cfs.
Kohlman Well No. 7 = All of Court #W536-73 for .022 cfs.
Kohlman Well No. 8 = All of Court #W536-73 for .031 cfs.
Kohlman Well No. 9 = All of Court #W536-73 for .017 cfs.
Kohlman Well No. 10 = All of Court #W536-73 for .022 cfs.
Kohlman Well No. 11 = All of Court #W536-73 for .022 cfs.

TOGETHER with all and singular the hereditaments and appurtenances thereto belonging, or in anywise appertaining, and the reversion and reversions, remainder and remainders, rents, issues and profits thereof, and all estate, right, title, interest, claim and demand whatsoever of the grantor, either in law or equity, of, in and to the above bargained premises, with all the hereditaments and appurtenances.

TO HAVE AND TO HOLD the said premises above bargained and described, with the appurtenances, unto the grantee, its heirs and assigns forever. And the grantor, for themselves, their heirs, and personal representatives, do covenant, grant, bargain, and agree to and with the grantee, its heirs and assigns, that at the time of the encoding and delivery of these premises, they are well seized of the premises above conveyed, have good, sure, perfect, absolute and indefeasible estate of inheritance, in law, in fee simple, and have good right, full power and lawful authority to grant, bargain, sell and convey the same in manner and form as aforesaid, and that the same are free and clear from all former and other grants, bargains, sales, liens, taxes, assessments, encumbrances and restrictions of whatever kind or nature soever, except: None

The grantor shall and will WARRANT AND FOREVER DEFEND the above bargained premises in the quiet and peaceable possession of the grantee, its heirs and assigns, against all and every person or persons lawfully claiming the whole or any part thereof. The singular number shall include the plural, the plural the singular, and the use of any gender shall be applicable to all genders.

IN WITNESS WHEREOF, the grantor has executed this deed on the date set forth above.

Leo J. Kohlman
LEO J. KOHLMAN, d/b/a, Kohlman, a General Partnership

Grace Anabel Kohlman
GRACE ANABEL KOHLMAN, d/b/a, Kohlman, a General Partnership

STATE OF COLORADO)
) SS:
COUNTY OF JACKSON)

The foregoing instrument was acknowledged before me this 25th day of August, 1994, by LEO J. KOHLMAN and GRACE ANABEL KOHLMAN, d/b/a, Kohlman, a General Partnership.

Witness my hand and official seal.

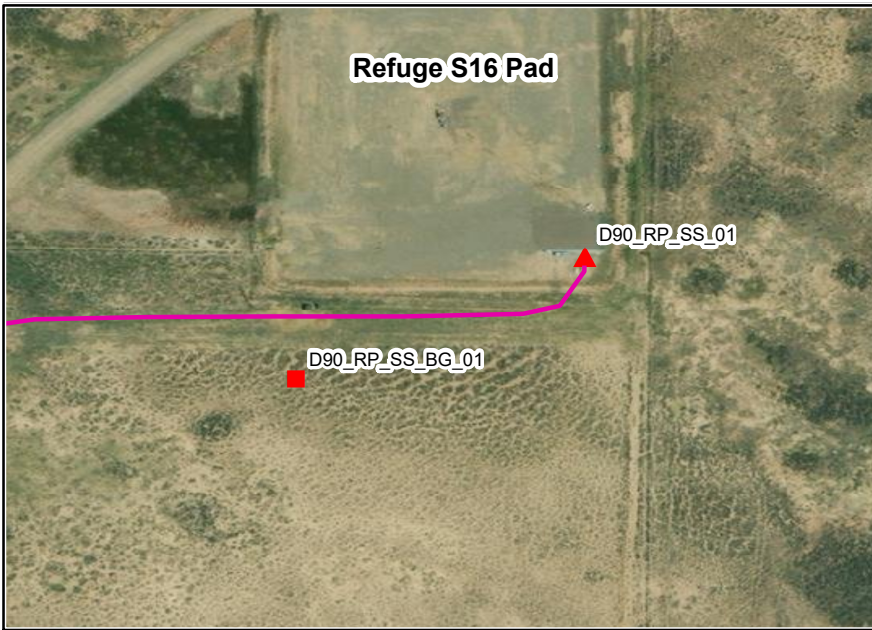
My Commission expires: 5-16-98

Lucas A. McKeely
Notary Public

Best Copy Available


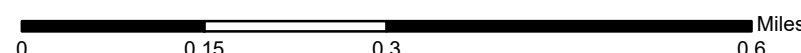

[illegible]

Appendix D – Proposed Soil Sampling Locations



Map Key

- ▲ Soil Sample Location
- Background Sample Location
- ★ D90 Site Location
- Project Location
- ▭ Township Boundaries
- ▭ Section Boundaries

 112 High Street Buffalo, Wyoming 82834 855.684.5891 www.absarokasolutions.com D90.CO.0506.25	<p>Refuge to Mallard Production Line Soil Sample Map - Aerial</p> <p><i>Jackson County, State of Colorado</i></p> <div style="display: flex; align-items: center; justify-content: center;">  <div style="margin-left: 10px;"> <p>0 0.15 0.3 0.6 Miles</p> <p>Coordinate System: WGS 1984 UTM Zone 13N</p> </div> </div>	 Date: 2/28/2022 Scale: 1:10,000
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