



WATER RESOURCES REPORT –STERLING RANCH EAST FILING 5 PRELIMINARY PLAN

TOPICAL REPORT RSI-3232 B



Please add the revised docs or
added docs per the States
comments

PREPARED BY

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RESPEC

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PREPARED FOR

Falcon Area Water and Wastewater Authority

AUGUST 2023

Project Number W0242.22001





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EXECUTIVE SUMMARY

This report is a submittal for Sterling Ranch East Filing No 5 Preliminary Plan.. The land is to be provided central water and sewer services through the Falcon Area Water and Wastewater Authority (FAWWA), which will become the overall service entity for, not only Sterling Ranch, but also the Retreat and the future Ranch.

It is expected that an urban residential home in Sterling Ranch will require an average of 0.353 annual acre-feet, which is the adopted user characteristic for FAWWA. This is consistent with historic needs for nearby developments. Note that for the smaller high-density lots, FAWWA has adopted an SFE equivalency ratio to account for substantially reduced water needs, although this is partially offset by estimation of common area irrigation needs.

Sterling Ranch East Filing 5 PUD Preliminary Plan includes 160 lots, 52 of which fall into high-density development ratios for small lots, and roughly 2.42 annual acre-feet of water set aside for irrigated landscaping. **The resulting water demand is 57.08 acre-feet.**

The total 300 year water supply for FAWWA is shown in Table 3 and totals 1930.03 annual acre-feet_{300 year}. Appendix F is an accounting of active water commitments, which total 957.84 acre-feet including all subdivisions committed through August 11, 2023.

This leaves a net excess of currently available water of 972.19 AF_{300 year} and therefore there is more than sufficient water supply to meet the needs of Sterling Ranch East Filing 5 Preliminary Plan on the 300-year basis.



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1.0 INTRODUCTION

The purpose of this study is to provide a preliminary outline of the water resources and wastewater needs that would be necessary for the Sterling Ranch East Filing 5 Preliminary Plan development.

1.1 NEW DEVELOPMENT DESCRIPTION

The Sterling Ranch East Filing 5 Preliminary Plan development is located east of Vollmer Road and north of Woodmen Road. This 47.168 acre area will include 160 single family lots.

Appendix A contains the *Overall Service Area Map* for FAWWA, which includes SRMD.

Appendix B contains the proposed Sterling Ranch East Filing 5 Preliminary Plan

2.0 PROJECTION OF WATER NEEDS

2.1 ANALYSIS OF WATER NEEDS

It is expected that the residential lots on central water will be developed with single-family housing with anticipated turf grass landscaping.

For the last five years, there has been a trend in land use that provides for much smaller lots and much denser development in certain areas. Lots smaller than 7,000 square feet are anticipated in certain areas. This is resulting in much lower water needs for these types of developments. The standard SFE adopted in Sterling Ranch has been 0.353 annual acre-feet. However, this is for the formerly typical household anticipating 1500 square feet or more of landscaping. In order to adjust for such increases in density, we are adopting a scaled down equivalency to meet the changes in lot sizes. For instance, lot areas less than 3500 sf have reduced water use that roughly is equivalent to apartments or townhomes where water use is indoor only.

Based on data from other areas, we have established a SFE equivalency factor scale as follows for these smaller lot sizes;

Table 1. SFE Equivalency for High Density Lots

Lot Size	SFE Ratio	Effective Annual Demand
Lots < 2000 SF	0.65	0.23
Lots < 3500 SF	0.75	0.265
Lots < 7000 SF	0.90	0.318
Lots > 7000 SF	1.0	0.353

RS5000 requires a minimum lot size of 5,000 SF - the water calculated is lower than the SFE ratio for this development as written above; but this table is higher than the EPC Code SFE



Sterling Ranch East Filing 5 Preliminary Plan has irrigated areas within the common areas or tracts that total roughly 0.93 acres. The landscaping plan specifies 24,130 SF of active or permanent active irrigated landscaping and 45,147 of drip irrigated landscaping.

Using the above criteria, there are 52 lots in the <7000 SF category and 108 lots in the >7000 SF category. The expected water demands are shown in Table 2 following:

Table 2. Projected Water Demands for Sterling Ranch East Preliminary Plan 2

# of Units	Land Use	Water Use Per Unit (AF/Unit)	Annual Demand (AF)	Average Daily Flow (ADF) (GPD)	Maximum Daily Flow (MDF) (@2.45 x ADF) (GPD)	Peak-Hour Flow (@ 1.5 x MDF) (GPM)
0	Residential < 2000 SF	0.23	0	0	0	0
0	Residential < 3500 SF	0.265	0	0	0	0
52	Residential < 7000 SF	0.318	16.54	14,762	36,168	38
108	Residential > 7000 SF	0.353	38.12	34,035	83,385	87
1.036	Acres-Passive Net Irrigation	1.0	1.04	925	2267	2
0.554	Acres-Active Net Irrigation	2.5	1.38	1236	3029	3
Total			57.08	50,959	124,849	130

Chapter 8 LDC (your value is higher than required)

The total annual demand is 57.08 AF.

(d) Presumptive Use Values. In the absence of data on water use to the contrary or other minimum values established as acceptable by the State Engineer, the following presumptive values will be used to calculate the annual water demand:

- Residential inside use 0.26 acre feet per year for single family residences and 0.20 acre feet per year for each occupancy unit in multiple family residences other than single family. A duplex contains 2 occupancy units, a triplex contains 3 occupancy units, etc.;
- Residential and commercial landscaping use 0.0566 acre feet per 1,000 square feet of landscaping;
- Commercial and industrial inside use 0.1 gallon per day for each square foot of developed space; and
- Miscellaneous irrigation (landscaping, golf courses, etc.) use 2.46 acre feet per acre per year.

0.26 ac
feet =
84721.25
gallons



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3.0 WATER RIGHTS AND SYSTEM FACILITIES

3.1 WATER RIGHTS



Water rights adjudications have been decreed by the State of Colorado, Water Division 2 District Court, Water Division 1 District Court, and the Colorado Groundwater Commission. The comprehensive rights for the FAWWA service include both decrees and determinations. Local groundwater rights are associated with the service area components, Sterling, and the Retreat. Each of these sites has existing decrees and/or determinations outlining the rights associated with the development lands.

The most recent water rights added to the Sterling Ranch Inventory are three acquisitions noted in Table 3. Both the water decrees and determinations are included in **Appendix C** as well as the deeds for the water.

The three acquisitions are;

- McCune	BD-1689, BD-1690, BD-1691	391.33 acre-feet _{300 year}
- Bar-X Ranch	85CW-445 and 93 CW-018	592.78 acre-feet _{300 year}
- Shamrock West	85 CW 131	220.10 acre-feet _{300 year}

Table 3 on the following page details all of the water rights currently available for the FAWWA service area which now total 1930.03 acre-feet _{300 year}

please see State Eng comments also,note planning staffs comments on calcs....



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Table 3
Falcon Area Water and Wastewater Authority
Comprehensive Water Supply Inventory
Current Legal Supply

Update May 26, 2023

Table with columns: Land Formation/Acquirer, Reference Finding/Determination/Decree, Tributary Status, Volume, Annual Allocation 100 Year, Annual Allocation 300 Year, Reference Deed, Notes, Sand Thickness, Saturated Specific Yield. Includes sections for On-Site Surface Water Legal Sources, 20 CW 3059 Additional On-Site and Augmented Surface Water Legal Sources, Off-Site Bar-X Ground Water Sources, Shamrock West Ground Water Sources, Off-Site McCune Ground Water Sources, and On-Site Retreat Water Legal Sources.

Note 1: The water listed in the hatched area will be used to serve single family units and is not included in the Total Available for the Central System.

Total Current 100-Year Water Supply (AEP) 1900.03 Acre-Feet Legal Water Supply For Falcon Area Water and Wastewater Authority Central System

FAWWA On-Site Supplies

FAWWA Off-Site Supplies

FAWWA Retreat Water Supplies

Retreat Wells only are wells not included in G calculation

Respec, Inc

JDS-Hydro Consultants, Inc



3.2 ADEQUACY OF WATER RIGHTS CURRENT SUPPLY

The current water rights inventory by area is as follows:

/ Sterling original on-site non-tributary (NT) water rights		399.80 AF _{300 year}
/ 02 CW 3059		283.16 AF _{300 year}
/ Retreat at Timber Ridge on-site rights –		42.76 AF _{300 year}
/ McCune	BD-1689, BD-1690, BD-1691	391.33 acre-feet _{300 year}
/ Bar-X Ranch	85CW-445 and 93 CW-018	592.78 acre-feet _{300 year}
/ Shamrock West	85 CW 131	220.10 acre-feet _{300 year}

Sterling-owned and currently available on-site NT and adjudicated not non-tributary (NNT) water totals are 1930.03 AF_{300 year}, which would be adequate supply to meet the needs of 5,468 SFE.

As of this report August 11, 2023, the total water commitment within SRMD requires **957.84** AF_{300 year}. See Appendix F – FAWWA Water Supply vs Current Water Commitments.

This leaves a net excess of currently available water of 972.19 AF_{300 year} and therefore there is more than sufficient water supply to meet the needs of Sterling Ranch East Filing 5 on the 300-year basis.

3.3 MASTER PLANNING AND LONG-TERM AND FUTURE SOURCES OF SUPPLY

The FAWWA water system has only been in operation for three years, so little-to-no usable historic information would be reliable for unique, long-term planning. However, substantial nearby data from the Falcon area is available for use. As of the end of 2022, the system had approximately only 350 active users. Therefore, initial projections have been based on area-wide water user characteristics and a linear buildout rate. This rate is considered to be an average annual rate that might be reasonably maintainable over a 10-year period. The average growth rate is projected as 180 units added per year.

- / **2040 Scenario:** Based on the above factors, the FAWWA system might conservatively anticipate serving 3,710 SFEs in the year 2040. This number is a service area projection and includes the Retreat and The Ranch, as well as the main Sterling Ranch residents. This would require no additional water.
- / **2060 Scenario:** Based on the same factors, the Sterling system might be expected to serve 7,310 SFEs within its expanded service area, which includes the Retreat and The Ranch. This would be substantially greater than the actual Sterling Ranch. The annual acre-foot requirement might be 679 annual AF, but supply would include water from The Ranch which has not yet been added to inventory.

In addition to adding off-site sources, potential, additional supplies include renewable resources and/or regional projects bringing new water to the area



Long-Term Planning: Future water supply has already been contracted for and plans for implementation are underway. The first project recently completed provides augmentation for certain on-site NNT water, so that that water may be used in existing and expanded well fields on-site.

1. **Regionalization Opportunities:** FAWWA's main supply source is centralized at a point that both Cherokee Metropolitan District and Woodmen Hills Metropolitan District have adjacent major storage and delivery facilities. There are currently no arrangements in place to make connections, but in the future, SRMD may seek to have interconnections and possibly share supply.

The second element is a much broader regionalization: conducting cooperative actions with Colorado Springs Utilities (CSU), which SRMD has been open to. CSU is potentially also open to shared physical facility utilization, which would enable Sterling to expand its scope in seeking water rights. While it is not expected that Sterling will provide actual water, the access to facilities opens greater doors for SRMD.

2. **Indirect, Reuse, Lawn Irrigation Return Flows (LIRF) Credits, Aquifer Storage/Recharge, and Direct Reuse:** Regarding return flows, initial development is being planned around sourcing available physical supplies. These supplies are all fully-consumable and ultimately result in potential return-flow capabilities. Since SRMD wastewater is discharged to the Meridian system, which in turn has the potential to convert some reusable flows to available physical supplies, those options will be available and considered by Sterling. With regard to LIRF credits, Sterling has already initiated a case that will make augmentation use of its potential LIRF credits.

3.4 SYSTEM INTERCONNECTS

FAWWA currently has no system interconnections. However, as discussed previously, FAWWA's main supply source is centralized at a point that both Cherokee Metropolitan District and Woodmen Hills Metropolitan District have adjacent major storage and delivery facilities. It is possible that future agreements could be made.

3.5 SOURCE OF PHYSICAL SUPPLY

Municipal water demand would be met using primarily Arapahoe and Laramie-Fox Hills formation wells in the SRMD area. The first well site will be drilled with an Arapahoe Well (A-1) and Laramie-Fox Hills Well (LFH-1); well site #1 includes both an Arapahoe and a Laramie-Fox Hills well. Additional permits will be obtained as needed to ultimately continue to add to the system as needed. Existing well permits are included in **Appendix D**.

FAWWA has begun the process of filing to drill the second set of wells on the Retreat site which will possibly be needed in 2024.

Off-site water to the north of the SRMD service area is generally in the Denver and Arapahoe formations.



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3.6 WATER QUALITY AND TREATMENT

Appendix E contains the water quality reports for the initial wells drilled at Sterling Ranch. The quality is generally consistent with Denver Basin water typically encountered in the Falcon area. The quality of water in these aquifers in this area has typically been suitable for potable use with the addition of iron and manganese treatment.

3.7 WATER STORAGE, DISTRIBUTION, AND TRANSMISSION LINES

An initial 1.0-million-gallon tank has already been constructed at the SRMD site.

For the purpose of fire protection, we recommend eight-inch lines throughout the residential subdivision. The lines should be looped wherever the street layout allows. A transmission line of 24-inches in diameter has been extended south-southwesterly along one of the major roadways from the storage tank into Phase One of the development.

3.8 PUMPING FOR SERVICE PRESSURES

Ground elevations within the development service area range from approximately 6,970 feet to 7,320 feet. Adequate service pressures are generally considered 60 psi for residential service. The tank site is on the Sterling property at a base elevation of approximately 7,310 feet, which would be capable of supplying acceptable service pressures to ground elevations of approximately 7,190 feet. Initial development is anticipated to be at elevations below 7,190 feet, so the tank site will be able to provide adequate pressure.

Development construction has progressed such that the pressure system is likely to be needed sometime in 2023, FAWWA is currently constructing the pressure pump station so that it will be ready when needed next year.

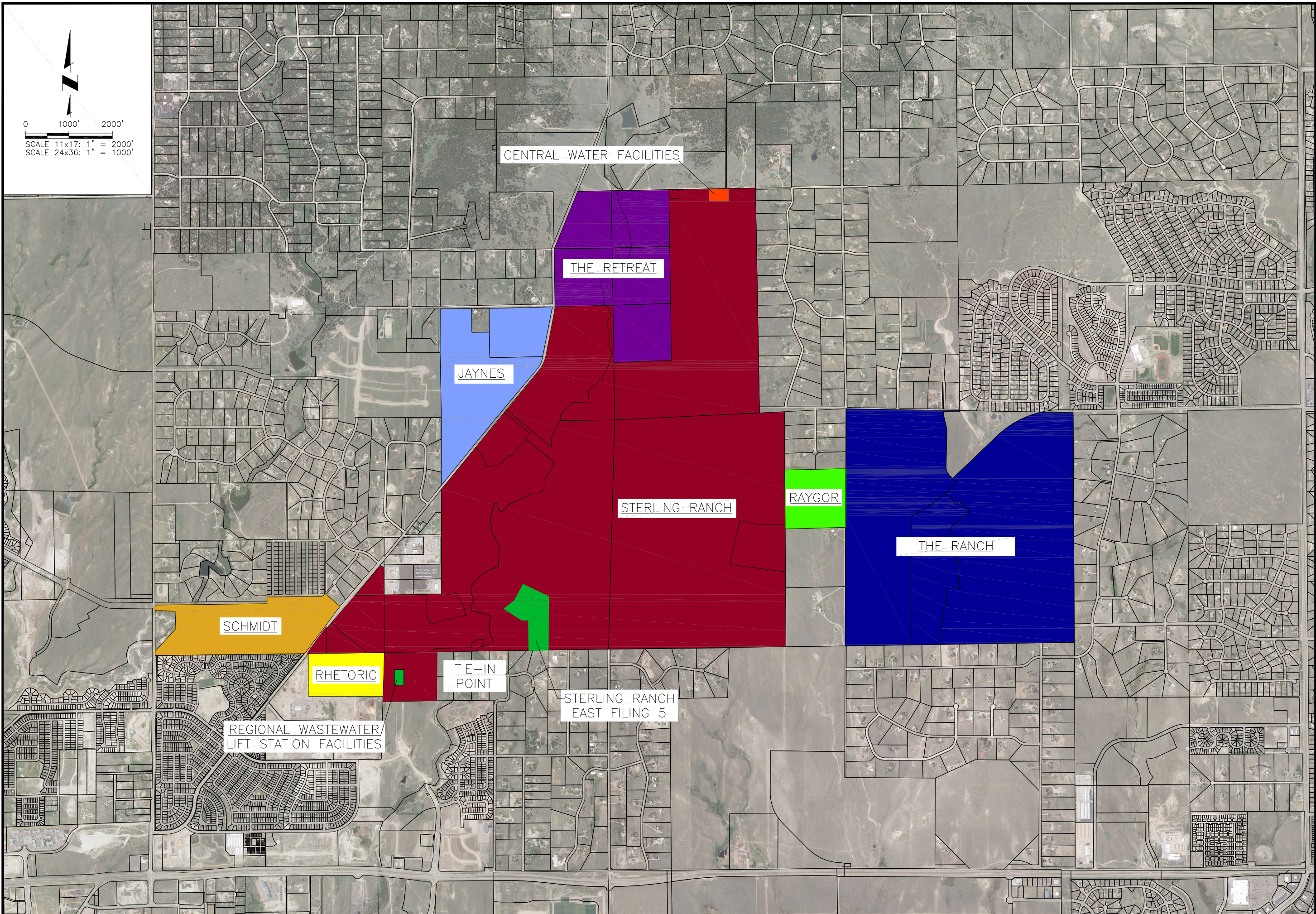
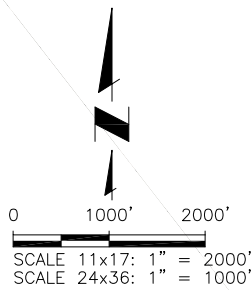


APPENDIX A

WATER SERVICE AREAS



2023/08/15 9:35 AM By: Kathy Nieto N:\Projects\W0242.22001--FAWA General Engineering\Drawings\16104--Sterling--Ranch.dwg



JDS-HYDRO a Division of **RESPEC**
5540 TECH CENTER DR., SUITE 100
COLORADO SPRINGS, COLORADO 80919
(719) 227-0072
DISCLAIMER: THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS. ANY ERRORS OR OMISSIONS SHALL BE REPORTED TO JDS-HYDRO, A DIVISION OF RESPEC. JDS-HYDRO ASSUMES NO LIABILITY FOR UNAUTHORIZED CHANGES AND/OR REVISIONS MADE TO PLANS.

APPENDIX A
FALCON AREA WATER AND WASTEWATER AUTHORITY
SERVICE AREA

NO.	DESCRIPTION	BY	APP.	DATE
1				
2				
3				
4				
5				
6				
7				

EXHIBIT

Project No.: 161.04
Date: 10/11/22
Design: JPM
Drawn: JLB
Check: JPM

PLAN
SHEET 1 OF 1



APPENDIX B

STERLING RANCH EAST FILING NO. 5

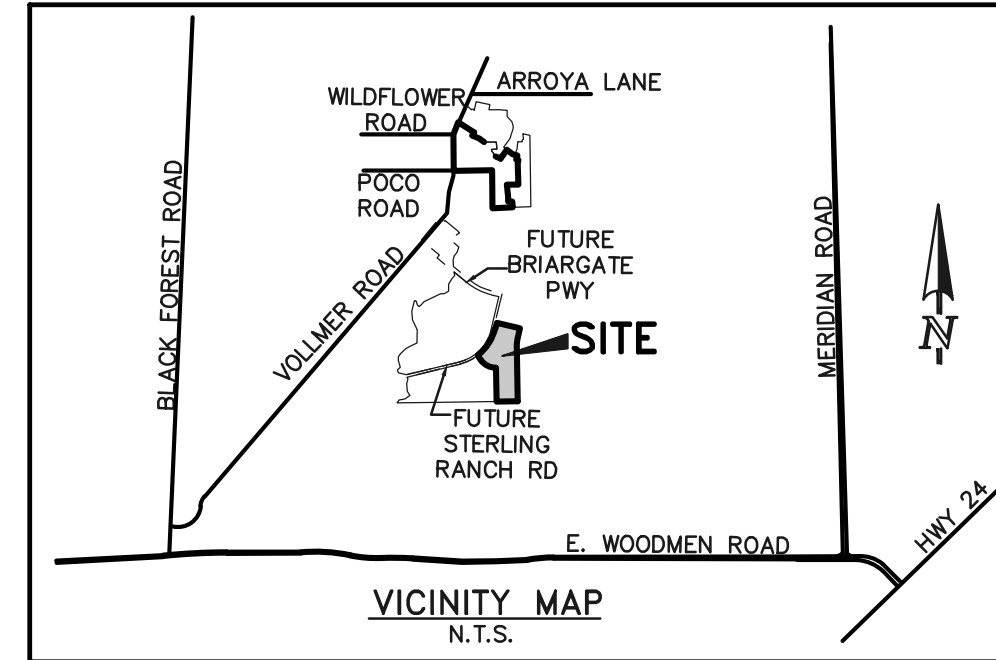


STERLING RANCH EAST FILING NO. 5

COUNTY OF EL PASO, STATE OF COLORADO

PRELIMINARY PLAN

JUNE 2023



GENERAL NOTES:

- ALL SIDEWALKS SHOWN ON DEVELOPMENT PLAN ARE TO BE 5' CONCRETE UNLESS OTHERWISE SPECIFIED.
- ALL TRAILS TO BE NON-MOTORIZED TRAILS.
- TRAILS LABELED AS "COUNTY REGIONAL TRAIL" WILL BE MAINTAINED BY EL PASO COUNTY.
- LANDSCAPING IN PUBLIC-RIGHTS-OF-WAY WILL BE MAINTAINED BY THE STERLING RANCH METROPOLITAN DISTRICT.
- DEVELOPER SHALL ANALYZE THE NEED TO PROVIDE ALL NECESSARY OFFSITE ROAD IMPROVEMENTS, WHICH MAY INCLUDE IMPROVEMENTS IN THE CITY OF COLORADO SPRINGS, TO PROVIDE AN APPROPRIATE LEVEL OF SERVICE TO THIS DEVELOPMENT. IF OFFSITE ROAD IMPROVEMENTS ARE NECESSARY, THEY WILL BE SPECIFICALLY OUTLINED PER A SUBDIVISION IMPROVEMENTS AGREEMENT OR DEVELOPMENT AGREEMENT BETWEEN DEVELOPER AND EL PASO COUNTY.
- ALL STREETS SHALL BE NAMED AND CONSTRUCTED TO EL PASO COUNTY STANDARDS AND ANY APPROVED DEVIATION. UPON ACCEPTANCE EL PASO COUNTY, PUBLIC STREETS SHALL BE MAINTAINED BY THE COUNTY.
- NOTWITHSTANDING ANYTHING DEPICTED IN THIS PLAN IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE (LDC), THE ECM, THE DRAINAGE CRITERIA MANUAL (DCM), AND THE DCM VOLUME 2. ANY DEVIATIONS FROM THESE STANDARDS MUST BE SPECIFICALLY REQUESTED AND APPROVED IN WRITING TO BE ACCEPTABLE. THE APPROVAL OF THIS PRELIMINARY PLAN DOES NOT IMPLICITLY ALLOW ANY DEVIATIONS OR WAIVERS THAT HAVE NOT BEEN OTHERWISE APPROVED THROUGH THE DEVIATION APPROVAL PROCESS.
- THE SUBDIVIDER(S) AGREE ON BEHALF OF HIM/HERSELF AND ANY DEVELOPER OR BUILDER SUCCESSORS AND ASSIGNEES THAT SUBDIVIDER AND/OR SAID SUCCESSORS AND ASSIGNEES SHALL BE REQUIRED TO PAY TRAFFIC IMPACT FEES IN ACCORDANCE WITH THE EL PASO COUNTY ROAD IMPACT FEE PROGRAM RESOLUTIONS (RESOLUTION NO.19-471), OR ANY AMENDMENTS THERETO, AT OR PRIOR TO THE TIME OF BUILDING PERMIT SUBMITTALS. THE FEE OBLIGATION, IF NOT PAID AT FINAL PLAT RECORDING, SHALL BE DOCUMENTED ON ALL SALES DOCUMENTS AND ON PLAT NOTES TO ENSURE THAT A TITLE SEARCHER WILL FIND THE FEE OBLIGATION BEFORE SALE OF THE PROPERTY.
- THE FOLLOWING UTILITY PROVIDERS WILL SERVE THE STERLING RANCH WEST FILING NO. 5 PRELIMINARY PLAN AREA:
WATER: FAWWA
WASTEWATER: FAWWA
GAS: COLORADO SPRINGS GAS SOUTH OF BRIARGATE & BLACK HILLS ENERGY NORTH OF BRIARGATE
ELECTRIC: MOUNTAIN VIEW ELECTRIC ASSOCIATION, INC.
- THE FOLLOWING REPORTS HAVE BEEN SUBMITTED IN ASSOCIATION WITH THE PRELIMINARY PLAN FOR THIS SUBDIVISION AND ARE ON FILE AT THE COUNTY PLANNING AND COMMUNITY DEVELOPMENT DEPARTMENT: TRANSPORTATION IMPACT STUDY; DRAINAGE REPORT; WATER RESOURCES REPORT; WASTEWATER DISPOSAL REPORT; GEOLOGY AND SOILS REPORT; FIRE PROTECTION REPORT; WILDFIRE HAZARD REPORT; NATURAL FEATURES REPORT.
- DEVELOPER SHALL COMPLY WITH FEDERAL AND STATE LAWS, REGULATION, ORDINANCES, REVIEW AND PERMIT REQUIREMENTS, AND OTHER AGENCY REQUIREMENTS, IF ANY, OF APPLICABLE AGENCIES INCLUDING, BUT NOT LIMITED TO, THE COLORADO PARKS AND WILDLIFE, COLORADO DEPARTMENT OF TRANSPORTATION, U.S. ARMY CORPS OF ENGINEERS AND THE U.S. FISH AND WILDLIFE SERVICE REGARDING THE ENDANGERED SPECIES ACT, PARTICULARLY AS IT RELATES TO THE LISTED SPECIES (E.G., PREBLE'S MEADOW JUMPING MOUSE).
- THE DISTRICT WILL BUILD AND MAINTAIN A NOISE WALL ALONG LOTS ADJACENT TO STERLING RANCH ROAD. SUCH NOISE WALL IS TO BE CONSTRUCTED OR REAR LOT LINE OF THE LOTS AS INDICATED ON THE PRELIMINARY PLAN. A DETAIL OF THE PROPOSED CONCRETE WALL IS ON ATTACHED LANDSCAPE PLAN.
- THE PARTIES RESPONSIBLE FOR THIS PLAN HAVE FAMILIARIZED THEMSELVES WITH ALL CURRENT ACCESSIBILITY CRITERIA AND SPECIFICATIONS AND THE PROPOSED PLAN REFLECTS ALL SITE ELEMENTS REQUIRED BY THE APPLICABLE ADA DESIGN STANDARDS AND GUIDELINES AS PUBLISHED BY THE UNITED STATES DEPARTMENT OF JUSTICE. APPROVAL OF THIS PLAN BY EL PASO COUNTY DOES NOT ASSURE COMPLIANCE WITH THE ADA OR ANY REGULATIONS OR GUIDELINES ENACTED OR PROMULGATED UNDER OR WITH RESPECT TO SUCH LAWS.
- AN AVIGATION EASEMENT EFFECTING THE SUBJECT PROPERTY AND DEVELOPMENT WILL BE RECORDED WITH EACH SUB. PLAT (IS THEREIN ESTABLISHED BY THE SUBDIVISION PLAT). SAID EASEMENT SHALL BE CONSIDERED A PUBLIC EASEMENT AND IS SUBJECT TO THE TERMS AND CONDITIONS AS SPECIFIED IN THE INSTRUMENT RECORDED UNDER RECEPTION NO. 217069667 OF THE RECORDS OF EL PASO COUNTY, COLORADO. ALL OTHER EASEMENT OR INTERESTS OF RECORD AFFECTING ANY OF THE PLATTED PROPERTY DEPICTED HEREON SHALL NOT BE AFFECTED AND SHALL REMAIN IN FULL FORCE AND EFFECT.
- UPON ACCEPTING RESIDENCY WITHIN STERLING RANCH, ALL ADULT RESIDENTS AND OCCUPANTS SHALL BE REQUIRED TO SIGN A NOTICE IN WHICH TENANT ACKNOWLEDGES THAT STERLING RANCH LIES WITHIN AN AIRPORT OVERLAY ZONE AND IS LOCATED LESS THAN 9.5 MILES FROM COLORADO SPRINGS MUNICIPAL AIRPORT AND MAY, AT TIMES (24 HOURS PER DAY), EXPERIENCE NOISE AND OTHER ACTIVITIES AND OPERATIONS ASSOCIATED WITH AIRCRAFT AND THE AIRPORT.
- POTENTIALLY UNSTABLE SLOPES WILL BE MITIGATED WITH REGARDING TO SLOPES NO GREATER THAN 4:1 AND USE OF RETAINING WALLS PER THE RECOMMENDATION OF THE SOILS REPORT. THIS WILL BE ADDRESSED WITH FINAL DESIGN. IN AREAS OF SHALLOW GROUNDWATER, DUE TO SHALLOW GROUNDWATER IN THE AREA, ALL FOUNDATIONS SHALL INCORPORATE AN UNDERGROUND DRAINAGE SYSTEM. UNDER DRAINS TO BE MAINTAINED BY THE DISTRICT.
- UNLESS OTHERWISE INDICATED, ALL LOTS HAVE THE FOLLOWING EASEMENTS, 7' REAR PUBLIC UTILITY AND DRAINAGE EASEMENT, 5' SIDE PUBLIC EASEMENTS, 5' FRONT PUBLIC UTILITY AND PUBLIC IMPROVEMENT EASEMENT, AND ADDITIONAL EXCLUSIVE 10' FRONT PUBLIC UTILITY EASEMENT. THE SOLE RESPONSIBILITY FOR MAINTENANCE OF THESE EASEMENTS IS HEREBY VESTED WITH THE INDIVIDUAL PROPERTY OWNERS.
- THERE SHALL BE NO DIRECT LOT ACCESS TO STERLING RANCH ROAD FOR ANY RESIDENTIAL LOTS.

SITE DATA

TAX ID NUMBERS:	PORTION OF 52330-00-018 & 52000-00-552
TOTAL AREA:	47.17 ACRES
DEVELOPMENT SCHEDULE:	FALL 2023
SKETCH PLAN:	SKP 22-004
CURRENT ZONING:	RR-5
PROPOSED ZONING:	RS-5000 & RR-0.5
CURRENT USE:	AGRICULTURE GRAZING/VACANT
PROPOSED USE:	SINGLE FAMILY RESIDENTIAL
PROPOSED GROSS DENSITY:	3.4 DU/AC (160 LOTS/47.17 AC)
PROPOSED NET DENSITY:	5.8 DU/AC (160 LOTS/27.67 AC)
LANDSCAPE SETBACKS:	STERLING RANCH ROAD: 10 FT

ZONE DIMENSIONAL STANDARDS

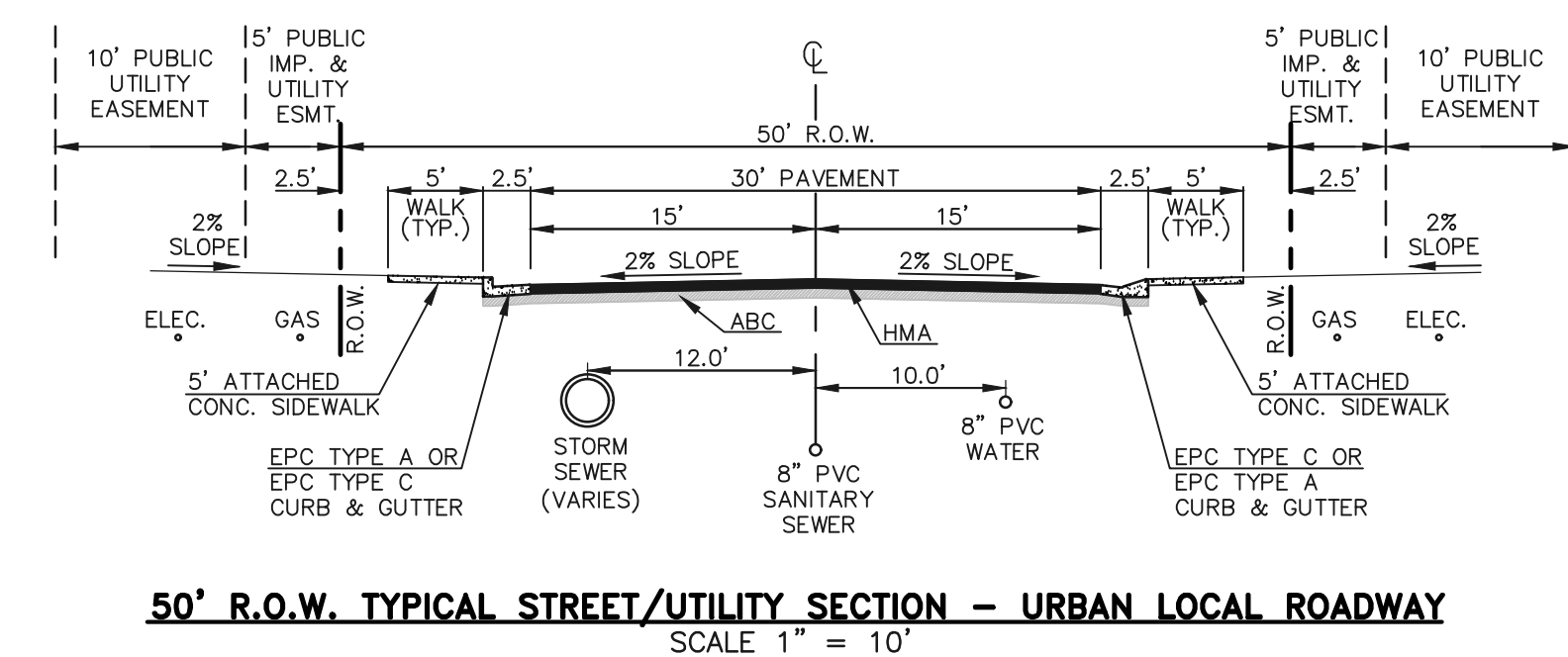
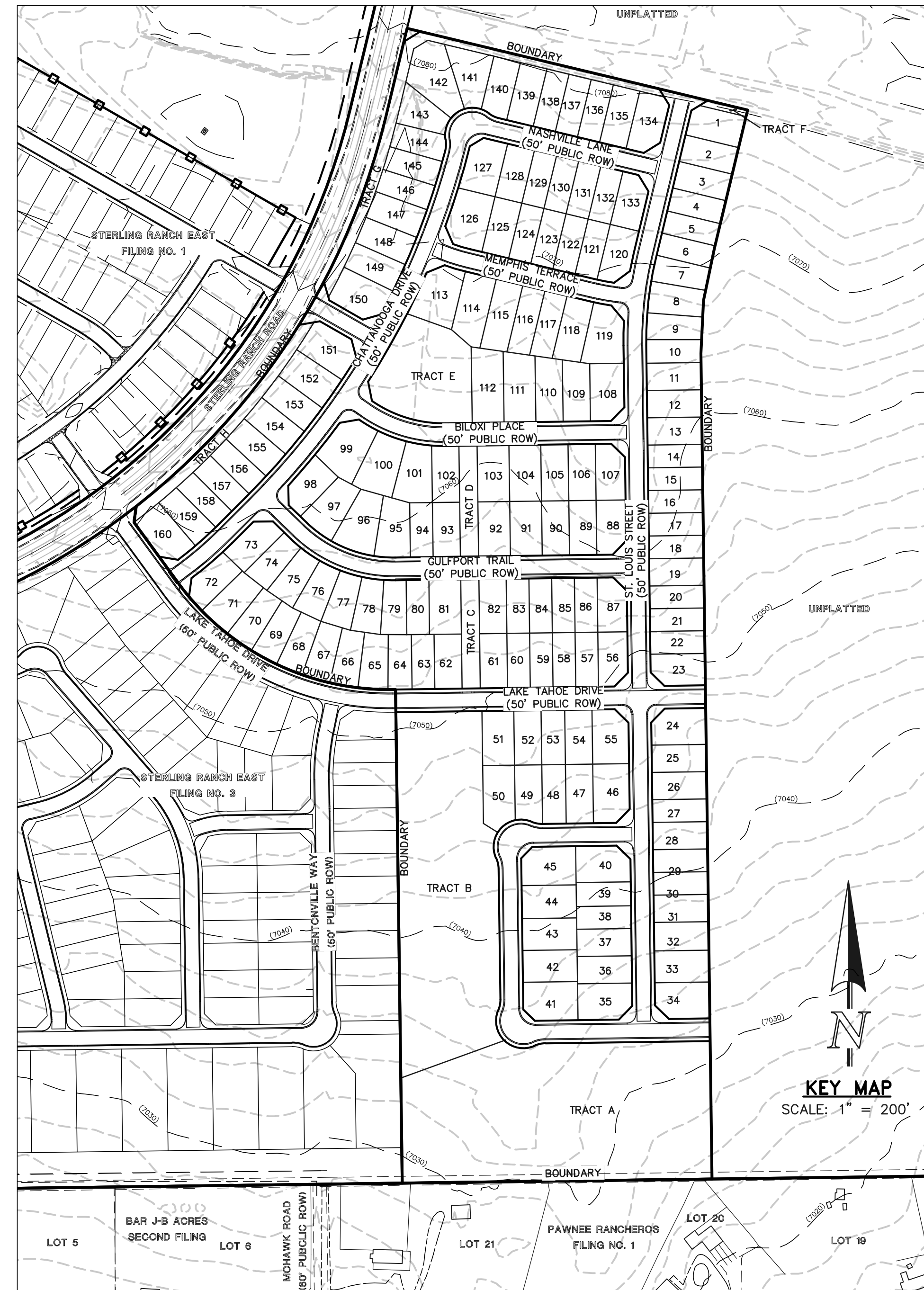
ZONE	MIN. LOT SIZE	MAX. BUILDING HEIGHT	MAX. LOT COVERAGE	MIN. LOT WIDTH AT FRONT SETBACK LINE	FRONT BUILDING SETBACK	SIDE BUILDING SETBACK	REAR BUILDING SETBACK
RS-5000	5,000 SF	30'	40%/45%	50'	25'	5'	25'
RR-0.5	21,780 SF	30'	NONE	100'	25'	10'	25'

LAND USE DATA TABLE

LAND USE	ACRES	% OF LAND
SINGLE FAMILY	27.67	58.6%
ROAD ROW	8.97	19.0%
COMMUNITY PARK	5.08	10.8%
NEIGHBORHOOD PARK/OPEN SPACE/DRAINAGE	0.89	1.9%
DRAINAGE/DETENTION	4.56	9.7%
TOTAL	47.17	100%

PROJECT TEAM

OWNER:	CLASSIC SRJ LAND, LLC 2138 FLYING HORSE CLUB DR. COLORADO SPRINGS, CO 80921 (719) 592-9333 MR. LOREN MORELAND
APPLICANT:	CLASSIC CONSULTING 619 N. CASCADE AVE., SUITE 200 COLORADO SPRINGS, CO 80903 (719) 785-2802 MR. MARC A. WHORTON, P.E.



SHEET INDEX:

COVER SHEET	SHEET 1 OF 8
LEGAL BOUNDARY & ADJACENT OWNERS EXHIBIT	SHEET 2 OF 8
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PRELIMINARY PLAN	SHEET 4 OF 8
PRELIMINARY PLAN	SHEET 5 OF 8
PRELIMINARY GRADING & UTILITY PLAN	SHEET 6 OF 8
PRELIMINARY GRADING & UTILITY PLAN	SHEET 7 OF 8
PRELIMINARY GRADING & UTILITY PLAN	SHEET 8 OF 8

48 HOURS BEFORE YOU DIG,
CALL UTILITY LOCATORS
811
UTILITY NOTIFICATION CENTER OF COLORADO
IT'S THE LAW

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NO. REVISION	DATE	REVIEW:

PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF CLASSIC CONSULTING ENGINEERS AND SURVEYORS, LLC

MARC A. WHORTON, COLORADO P.E. #37155 DATE



STERLING RANCH EAST FILING NO. 5
PRELIMINARY PLAN
TITLE SHEET

DESIGNED BY	ESO	SCALE	DATE	05/12/2023
DRAWN BY	ESO	(H) 1" = N/A	SHEET	1 OF 8
CHECKED BY	(V) 1" = N/A	JOB NO.	1183.25	

619 N. Cascade Avenue, Suite 200
Colorado Springs, Colorado 80903
(719) 785-0790
(719) 785-0799(Fax)

STERLING RANCH EAST FILING NO. 5

COUNTY OF EL PASO, STATE OF COLORADO

PRELIMINARY PLAN

JUNE 2023

LEGAL DESCRIPTION:

A PARCEL OF LAND BEING A PORTION OF THE SOUTHEAST QUARTER OF SECTION 33 AND THE SOUTHWEST QUARTER OF SECTION 34, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, EL PASO COUNTY, COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BASIS OF BEARINGS: THE SOUTH LINE OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, BEING MONUMENTED AT THE WEST END WHICH IS THE CENTER-EAST ONE-SIXTEENTH CORNER OF SAID SECTION 28, BY A 3-1/4" ALUMINUM SURVEYORS CAP STAMPED "ESI PLS 10376, 2006" AND AT THE EAST END, WHICH IS A 30' WITNESS CORNER TO THE EAST OF THE EAST QUARTER CORNER OF SAID SECTION 28, BY A 3-1/4" ALUMINUM SURVEYORS CAP STAMPED "ESI 10376, 2006", IS ASSUMED TO BEAR N89°08'28"E, A DISTANCE OF 1356.68 FEET.

COMMENCING AT THE CENTER-EAST ONE-SIXTEENTH CORNER OF SECTION 28, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN EL PASO COUNTY, COLORADO, SAID POINT BEING THE SOUTHWESTERLY CORNER OF RETREAT AT TIMBERRIDGE FILING NO. 1 RECORDED UNDER RECEPTION NO. 220714653 RECORDS OF EL PASO COUNTY, COLORADO;

THENCE S07°13'18"E, A DISTANCE OF 6440.55 FEET TO A POINT ON CURVE SAID POINT BEING ON THE SOUTHERLY RIGHT OF WAY LINE OF STERLING RANCH ROAD AS PLATTED IN HOMESTEAD NORTH AT STERLING RANCH FILING NO. 1 RECORDED UNDER RECEPTION NO. SAID POINT BEING ALSO THE NORTHEASTERLY CORNER OF STERLING RANCH EAST FILING NO. 3 RECORDED UNDER RECEPTION NO. SAID POINT BEING THE POINT OF BEGINNING;

THENCE ON THE SOUTHERLY RIGHT OF WAY LINE OF SAID STERLING RANCH ROAD THE FOLLOWING TWO (2) COURSES:

- ON THE ARC OF A CURVE TO THE LEFT WHOSE CENTER BEARS N38°03'24"W, HAVING A DELTA OF 38°28'07", A RADIUS OF 1,033.96 FEET AND A DISTANCE OF 1033.96 FEET TO A POINT OF TANGENT;
- N13°28'29"E, A DISTANCE OF 203.00 FEET;

THENCE S76°31'31"E, A DISTANCE OF 770.18 FEET;
 THENCE S13°28'29"W, A DISTANCE OF 312.80 FEET;
 THENCE S11°50'41"W, A DISTANCE OF 117.53 FEET;
 THENCE S02°44'13"W, A DISTANCE OF 116.36 FEET;
 THENCE S00°46'00"E, A DISTANCE OF 1,815.92 FEET TO A POINT ON THE NORTHERLY BOUNDARY OF PAWNEE RANCHEROS FILING NO. 1 RECORDED IN PLAT BOOK I-2 AT PAGE 28;
 THENCE S89°14'14"W, ON THE NORTHERLY BOUNDARY OF SAID PAWNEE RANCHEROS FILING NO. 1, A DISTANCE OF 681.43 FEET TO THE SOUTHEASTERLY CORNER OF SAID STERLING RANCH FILING NO. 3;

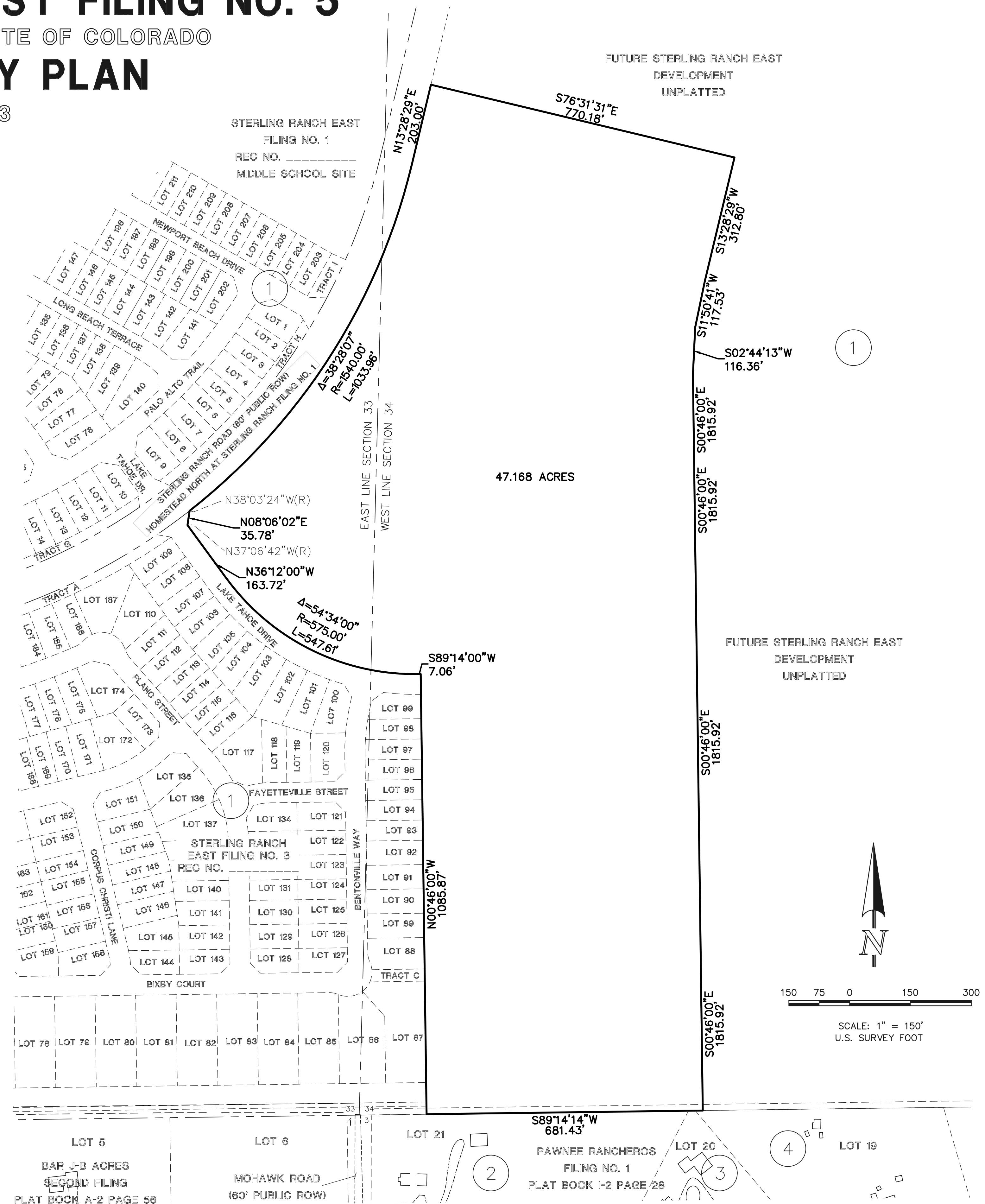
THENCE ON THE EASTERLY BOUNDARY OF SAID STERLING RANCH FILING NO. 3 THE FOLLOWING FIVE (5) COURSES:

- N00°46'00"W, A DISTANCE OF 1,085.87 FEET;
- S89°14'00"W, A DISTANCE OF 7.06 FEET TO A POINT OF CURVE;
- ON THE ARC OF A CURVE TO THE RIGHT, HAVING A DELTA OF 54°34'00", A RADIUS OF 575.00 FEET, AND A DISTANCE OF 547.61 FEET TO A POINT OF CURVE;
- N36°12'00"W, A DISTANCE OF 163.72 FEET;
- N08°06'02"E, A DISTANCE OF 35.78 FEET TO THE POINT OF BEGINNING.

CONTAINING A CALCULATED AREA OF 47.168 ACRES.

ADJACENT OWNERS

ADJACENT OWNER	NAME	MAILING ADDRESS	CITY STATE ZIP
1	CLASSIC SRJ LAND LLC	20 BOULDER CRESCENT ST STE. 100	COLORADO SPRINGS, CO 80903
2	KRUGER MATTHEW ADAMS	8515 MOHAWK RD	COLORADO SPRINGS, CO 80908
3	RUNGE MELISSA MAY	8425 BRULE RD	COLORADO SPRINGS, CO 80908
4	KOEHN WAYNE D	9070 OTO CIRCLE	COLORADO SPRINGS, CO 80908



48 HOURS BEFORE YOU DIG, CALL UTILITY LOCATORS 811 UTILITY NOTIFICATION CENTER OF COLORADO IT'S THE LAW THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.	NO. REVISION DATE REVIEW:
PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF CLASSIC CONSULTING ENGINEERS AND SURVEYORS, LLC MARC A. WHORTON, COLORADO P.E. #37155	DATE

CLASSIC CONSULTING

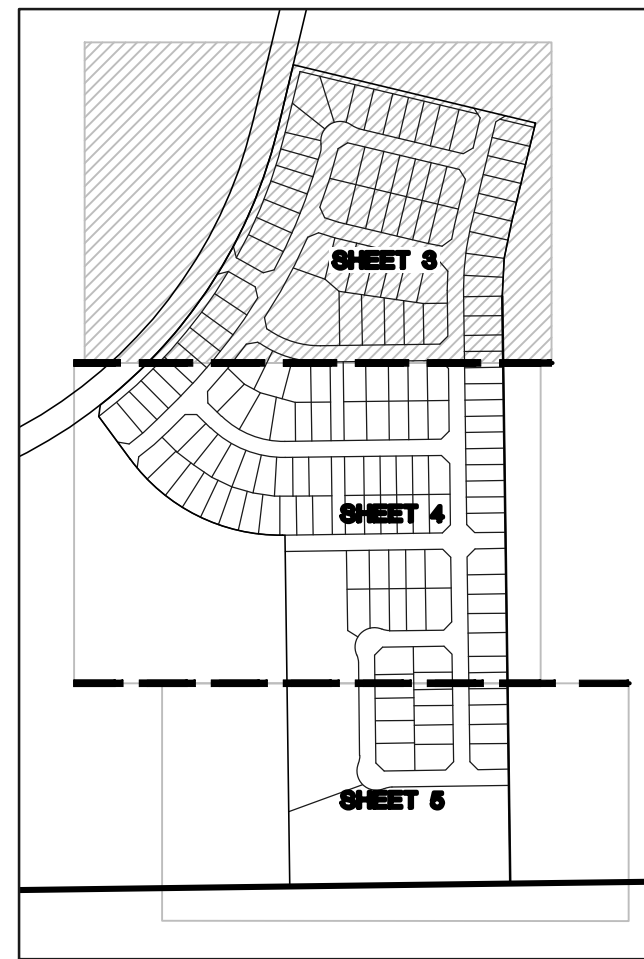
619 N. Cascade Avenue, Suite 200
 Colorado Springs, Colorado 80903

(719) 785-0790
 (719) 785-0799 (Fax)

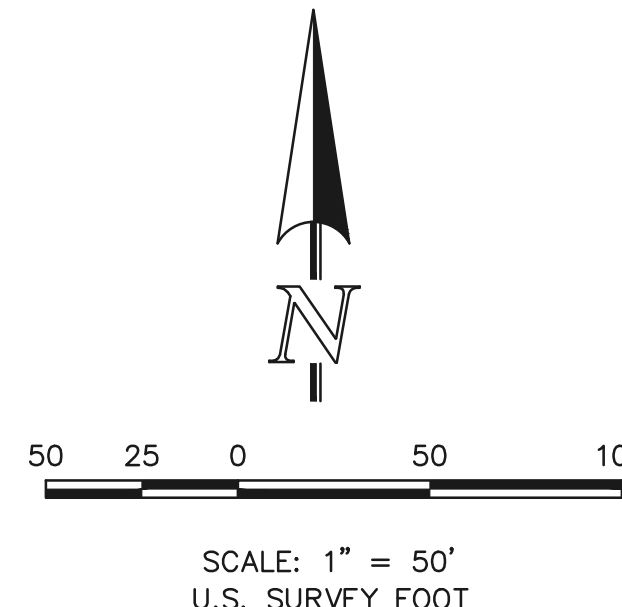
STERLING RANCH EAST FILING NO. 5
PRELIMINARY PLAN
 LEGAL BOUNDARY EXHIBIT &
 ADJACENT OWNERS

DESIGNED BY	ESO	SCALE	DATE	05/12/2023
DRAWN BY	ESO	(H) 1" = 150'	SHEET	2 OF 8
CHECKED BY	(V) 1" = N/A	JOB NO.	1183.25	

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SHEET INDEX
N.T.S.



SCALE: 1" = 50'
U.S. SURVEY FOOT

MATCHLINE~ (SEE SHEET 4)

48 HOURS BEFORE YOU DIG,
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811
UTILITY NOTIFICATION CENTER OF COLORADO
IT'S THE LAW

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NO.	REVISION	DATE	REVIEW:

PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF
CLASSIC CONSULTING ENGINEERS AND SURVEYORS, LLC

MARC A. WHORTON, COLORADO P.E. #37155 DATE

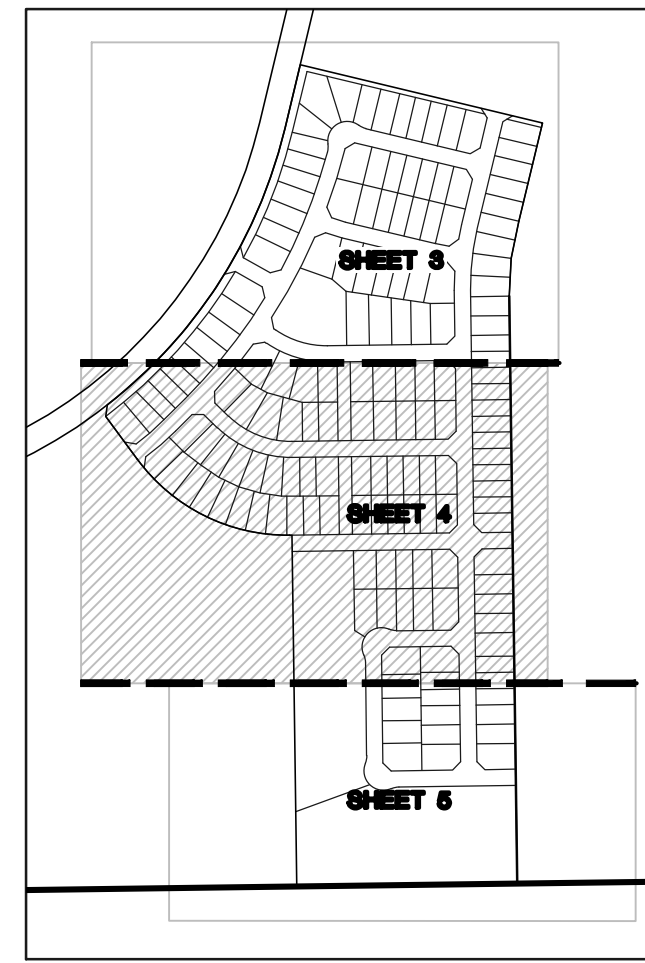


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PRELIMINARY PLAN

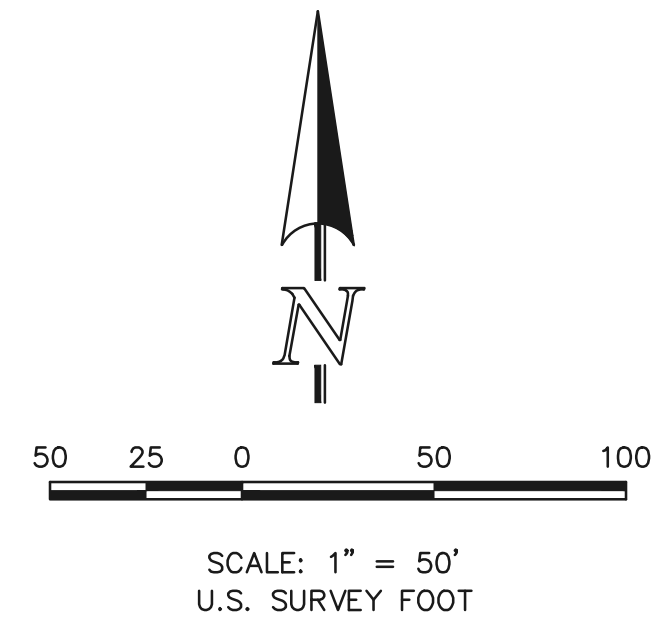
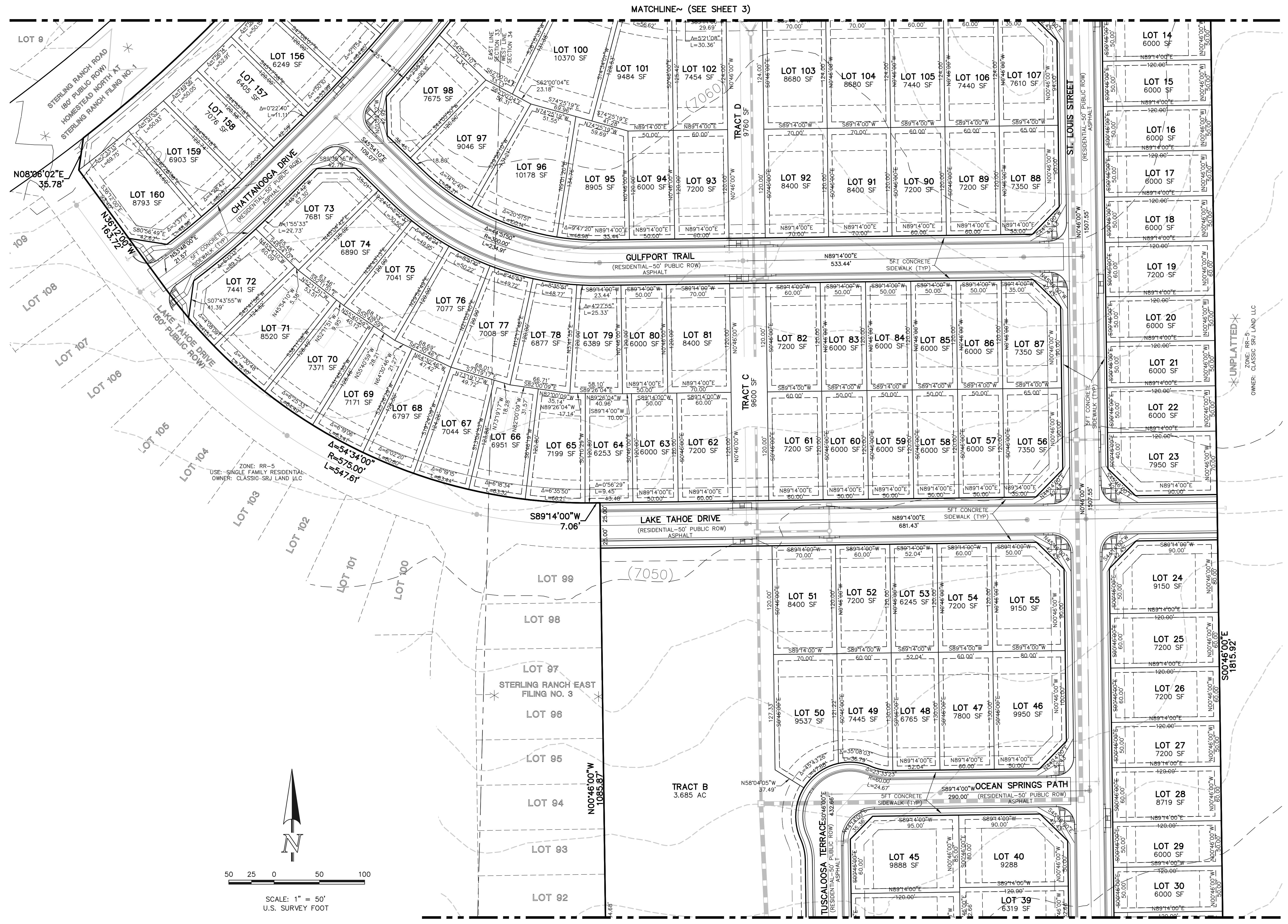
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CHECKED BY	(V) 1" = N/A	JOB NO.	1183.25	

619 N. Cascade Avenue, Suite 200 (719) 785-0790
Colorado Springs, Colorado 80903 (719) 785-0799 (Fax)

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SHEET INDEX
N.T.S.



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NO.	REVISION	DATE

REVIEW:
PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF
CLASSIC CONSULTING ENGINEERS AND SURVEYORS, LLC

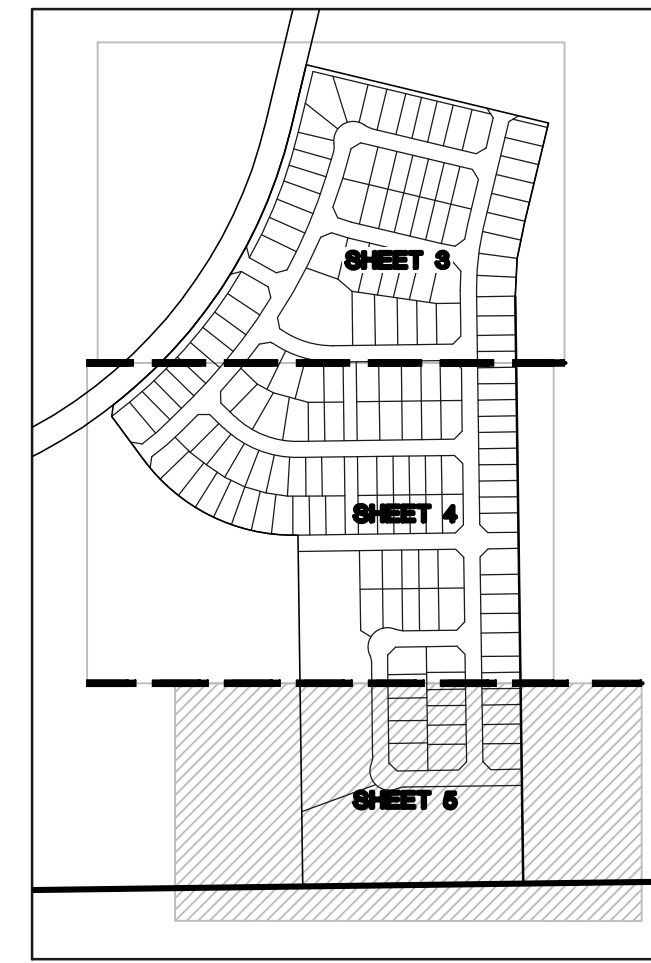
MARC A. WHORTON, COLORADO P.E. #37155 DATE



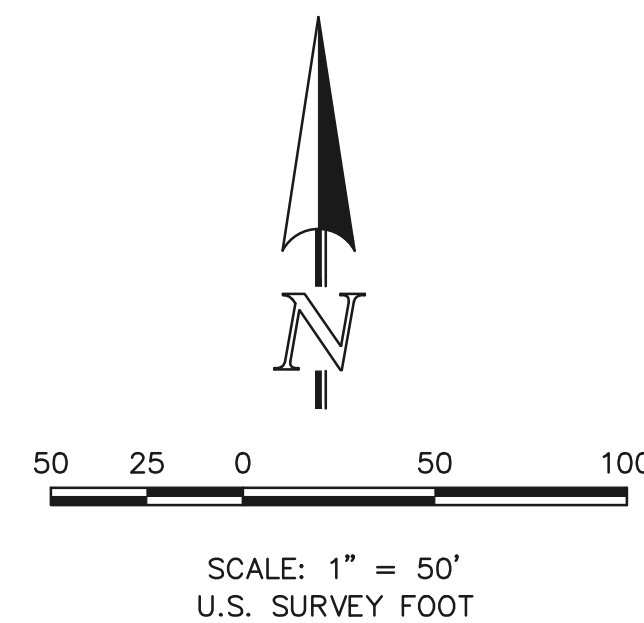
STERLING RANCH EAST FILING NO. 5
PRELIMINARY PLAN

DESIGNED BY	ESO	SCALE	DATE	05/12/2023
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CHECKED BY	(V) 1" = N/A	JOB NO.	1183.25	

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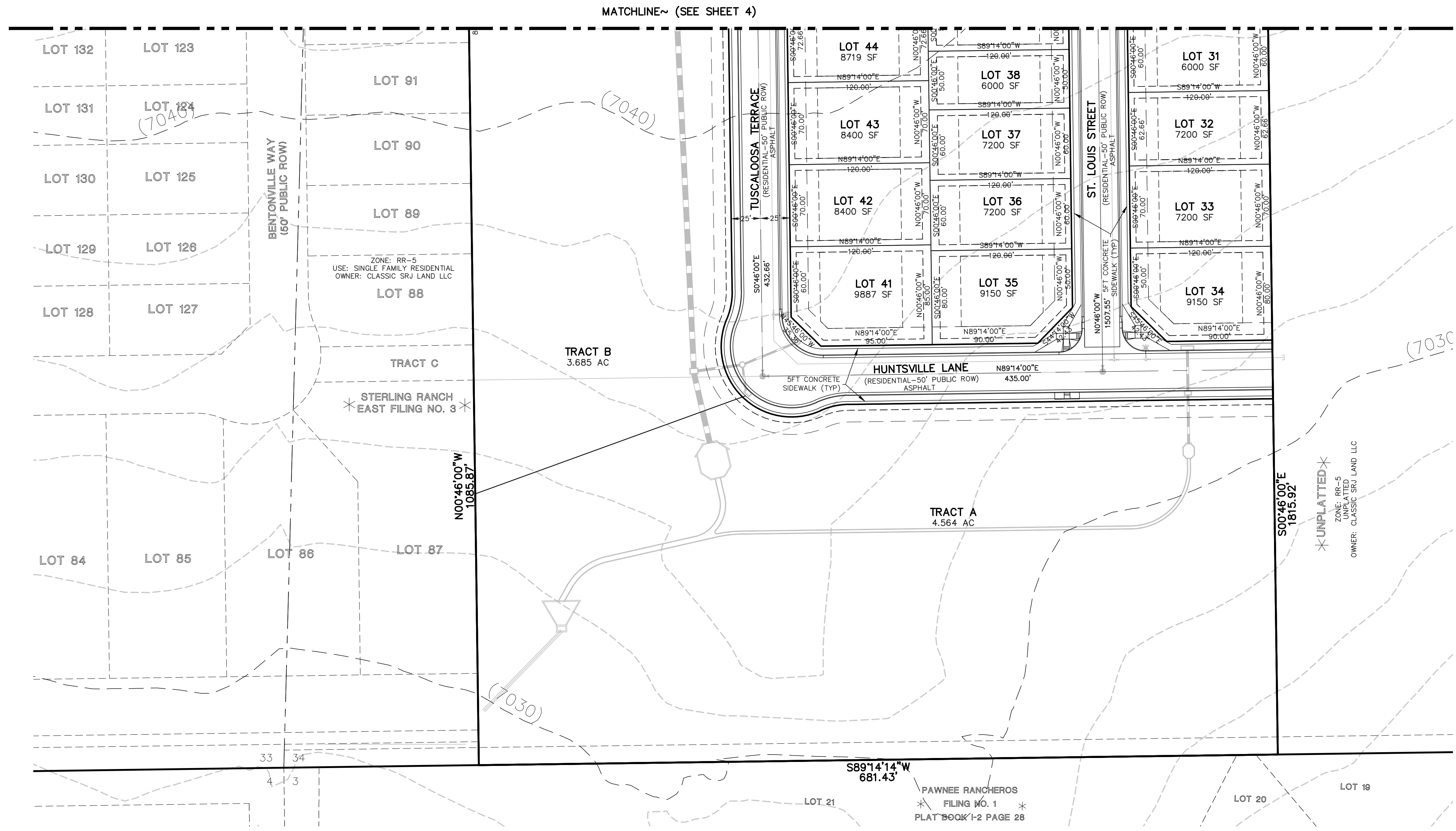


SHEET INDEX
N.T.S.



LEGEND

- (R) RADIAL BEARING
- SF SQUARE FEET
- (XXXX) ADDRESS
- ✱ NOT PART OF THIS SUBDIVISION



<p>48 HOURS BEFORE YOU DIG, CALL UTILITY LOCATORS 811 UTILITY NOTIFICATION CENTER OF COLORADO IT'S THE LAW</p> <p>THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.</p>		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>NO.</th> <th>REVISION</th> <th>DATE</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	NO.	REVISION	DATE															
NO.	REVISION	DATE																		

<p>REVIEW:</p> <p>PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF CLASSIC CONSULTING ENGINEERS AND SURVEYORS, LLC</p> <p>MARC A. WHORTON, COLORADO P.E. #37155 DATE</p>
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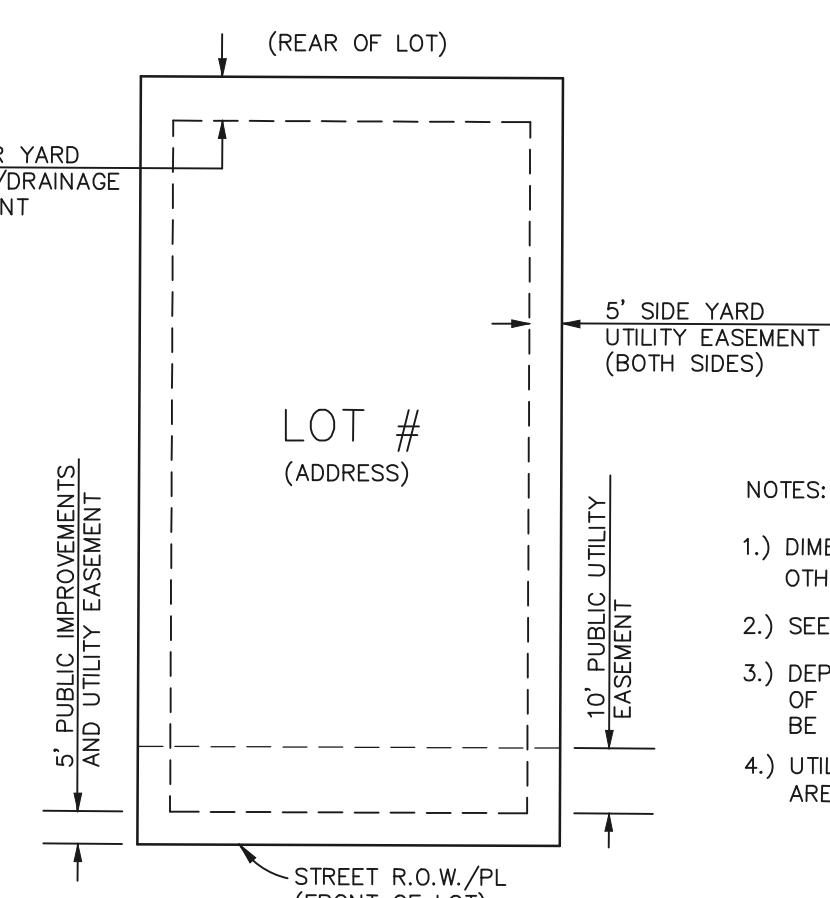
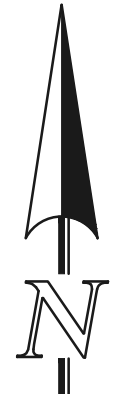
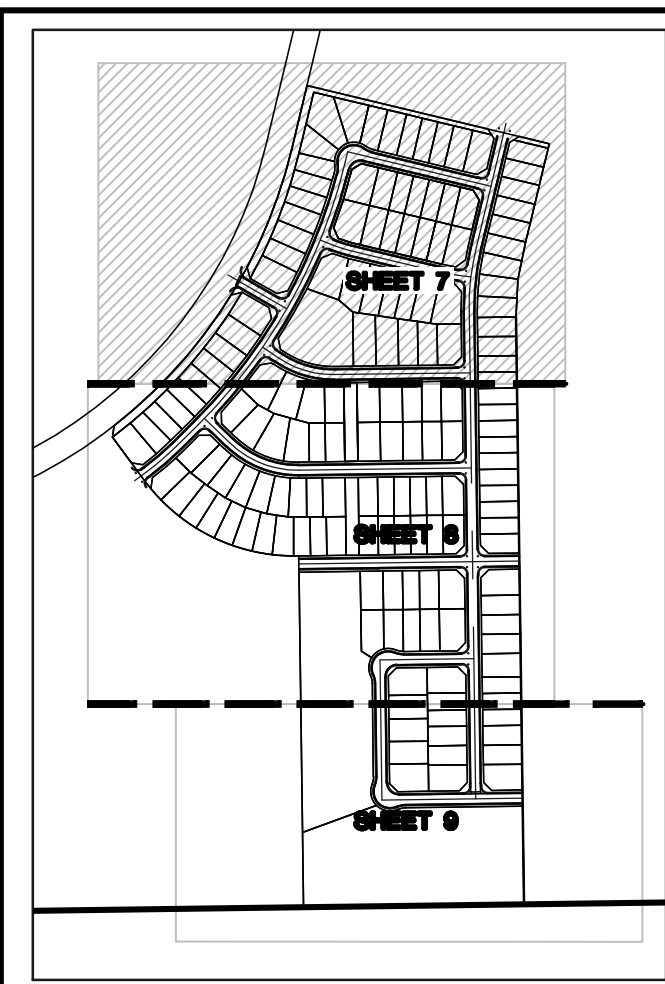
619 N. Cascade Avenue, Suite 200
Colorado Springs, Colorado 80903

(719) 785-0790
(719) 785-0799 (Fax)

<p>STERLING RANCH EAST FILING NO. 5 PRELIMINARY PLAN</p>			
DESIGNED BY	ESO	SCALE	DATE 05/12/2023
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CHECKED BY		(V) 1" = N/A	JOB NO. 1183.25



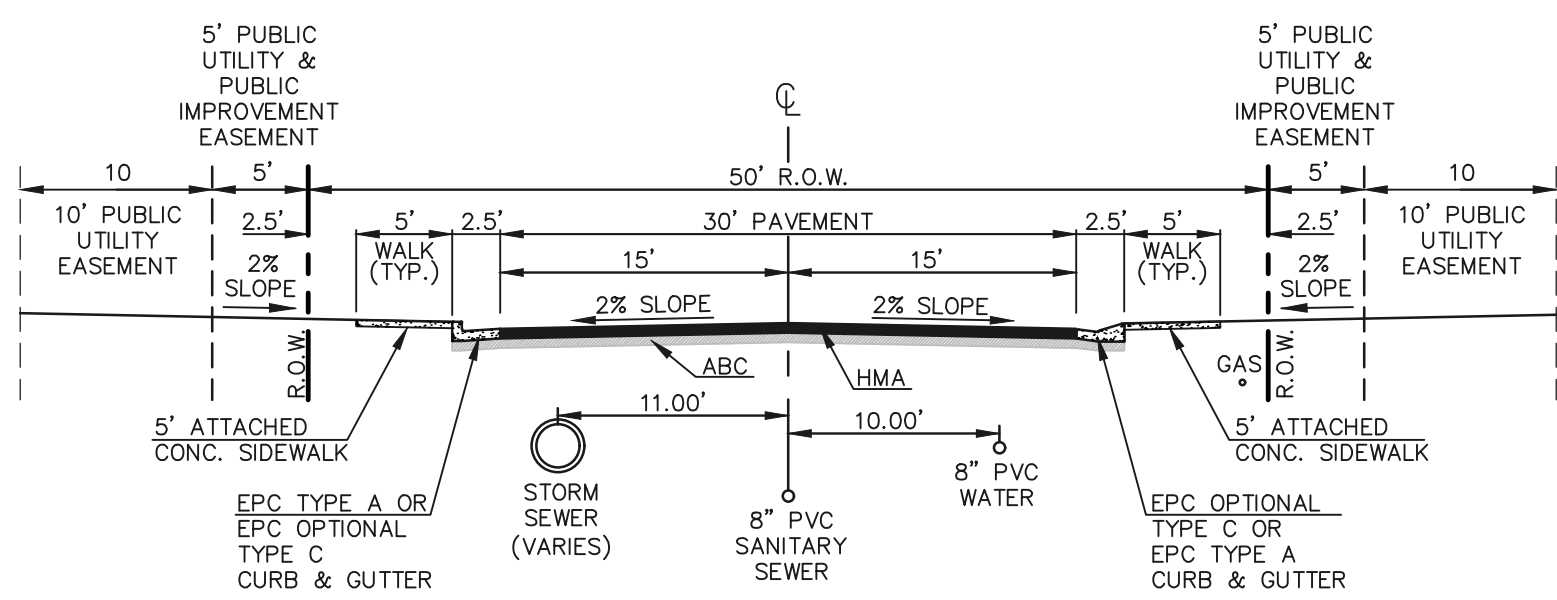
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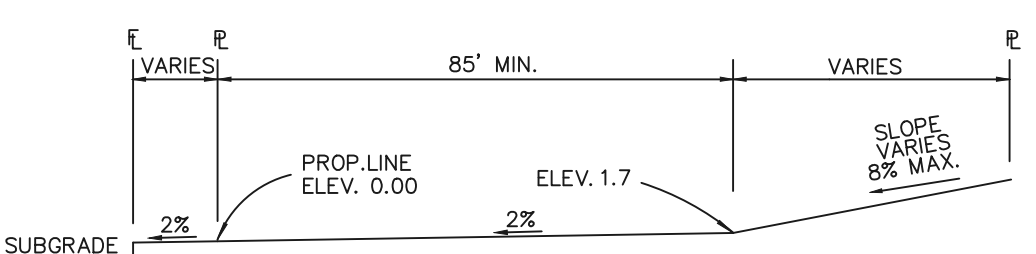
- NOTES:
- 1.) DIMENSIONS SHOWN ARE TYPICAL UNLESS OTHERWISE NOTED ON PLANS.
 - 2.) SEE PLANS FOR EASEMENTS WITHIN TRACTS
 - 3.) DEPENDING UPON FINAL UTILITY DESIGN, SOME OF THE SIDE AND REAR EASEMENTS MAY NOT BE UTILIZED.
 - 4.) UTILITY EASEMENT USE WITHIN FOREST MITIGATION AREAS WILL BE MINIMIZED AS MUCH AS POSSIBLE.

SHEET INDEX
N.T.S.

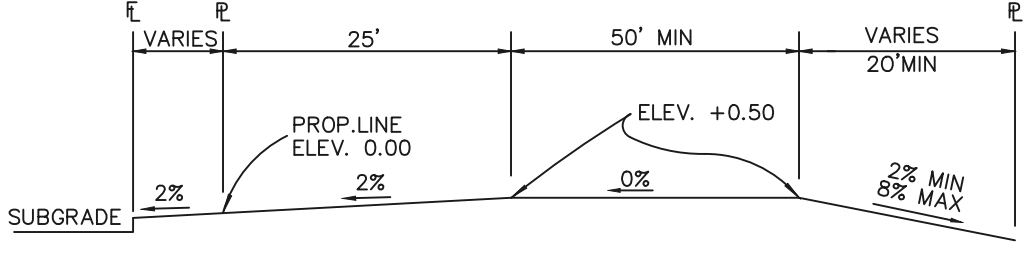
DETAIL: TYPICAL LOT EASEMENTS
N.T.S.



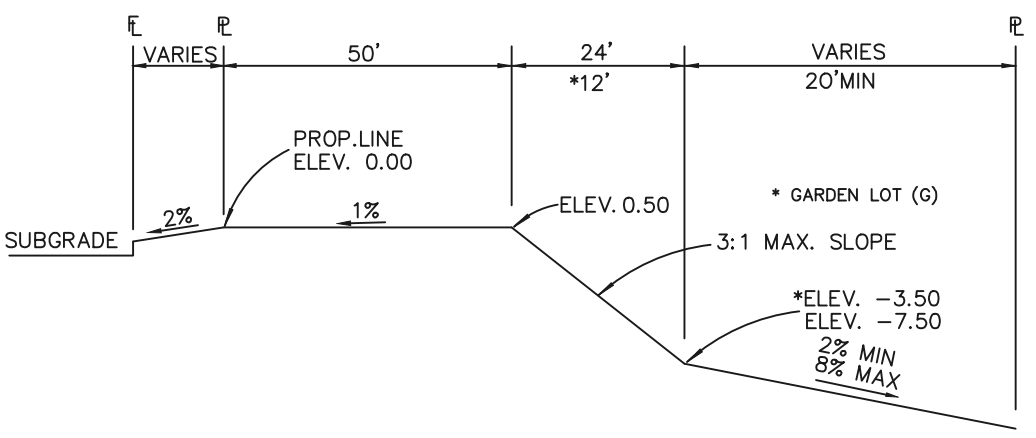
50' R.O.W. TYPICAL STREET/UTILITY SECTION
URBAN LOCAL ROADWAY
N.T.S.



TYPICAL (A) LOT
N.T.S.



TYPICAL (B) LOT
N.T.S.

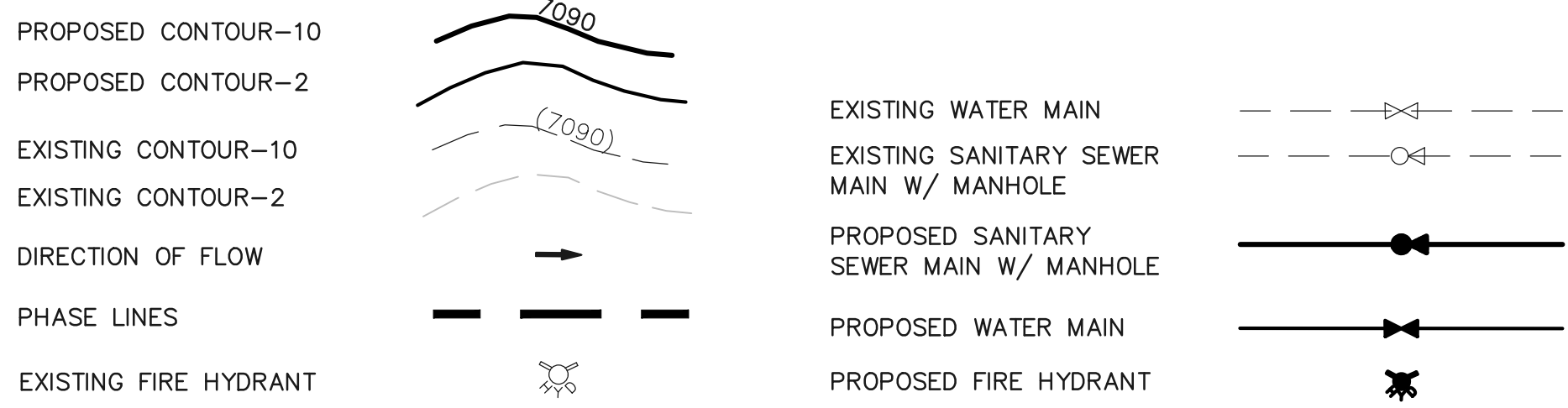


TYPICAL WALKOUT LOT (W/O) OR GARDEN (G)
N.T.S.

TYPICAL NATURAL LOT (N)
NO OVERLOT GRADING TO TAKE PLACE (NATURAL)

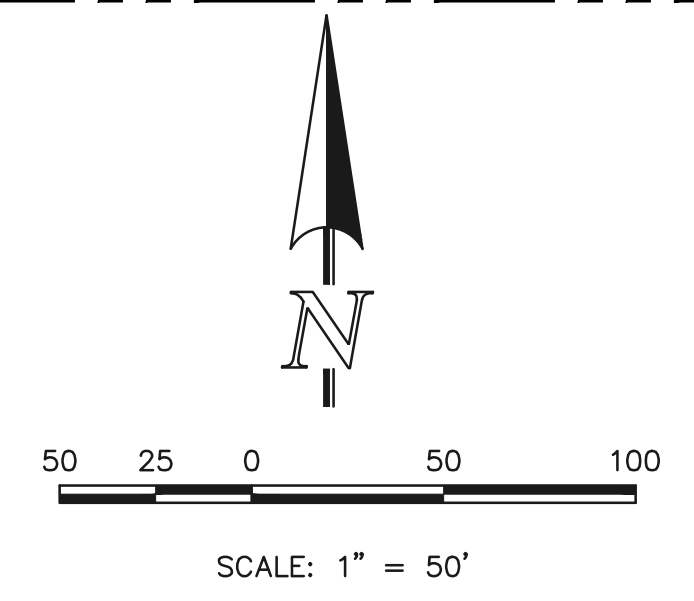
TYPICAL TRANSITION LOT (T)
PARTIAL OVERLOT GRADING TO TAKE PLACE TO ENSURE BUILDABLE AREA AND PROPER DRAINAGE (MOSTLY NATURAL)

- NOTES:
1. ALL TYPE C CURB & GUTTER IS THE OPTIONAL TYPE C CURB & GUTTER PER EPC STANDARDS
 2. ALL PROPOSED STORM ALIGNMENT AND INLET SIZING IS SCHEMATIC. FINAL DESIGN TO BE PROVIDED WITH CD'S AND FINAL DRAINAGE REPORT



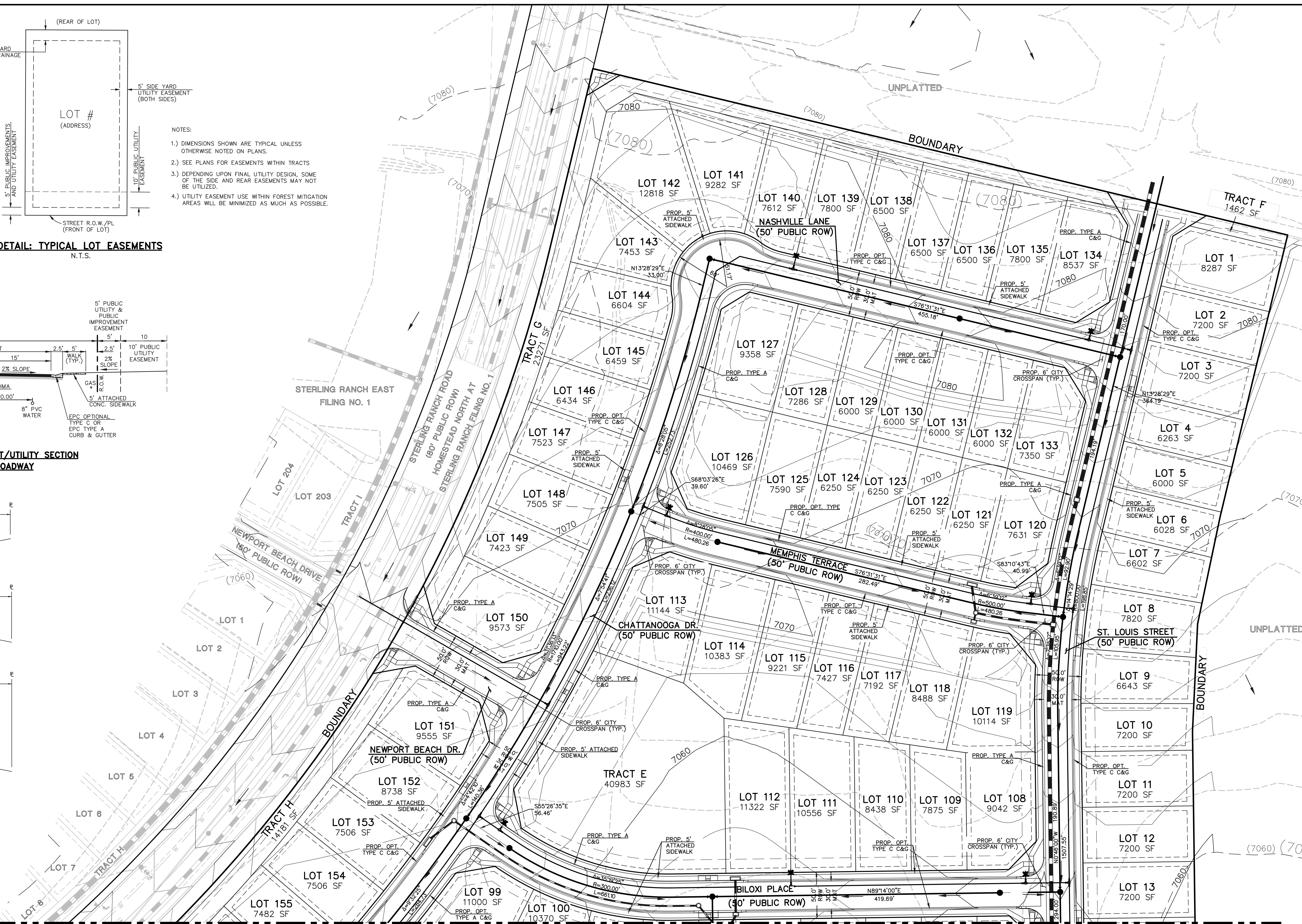
LEGEND

MATCHLINE~ (SEE SHEET 8)



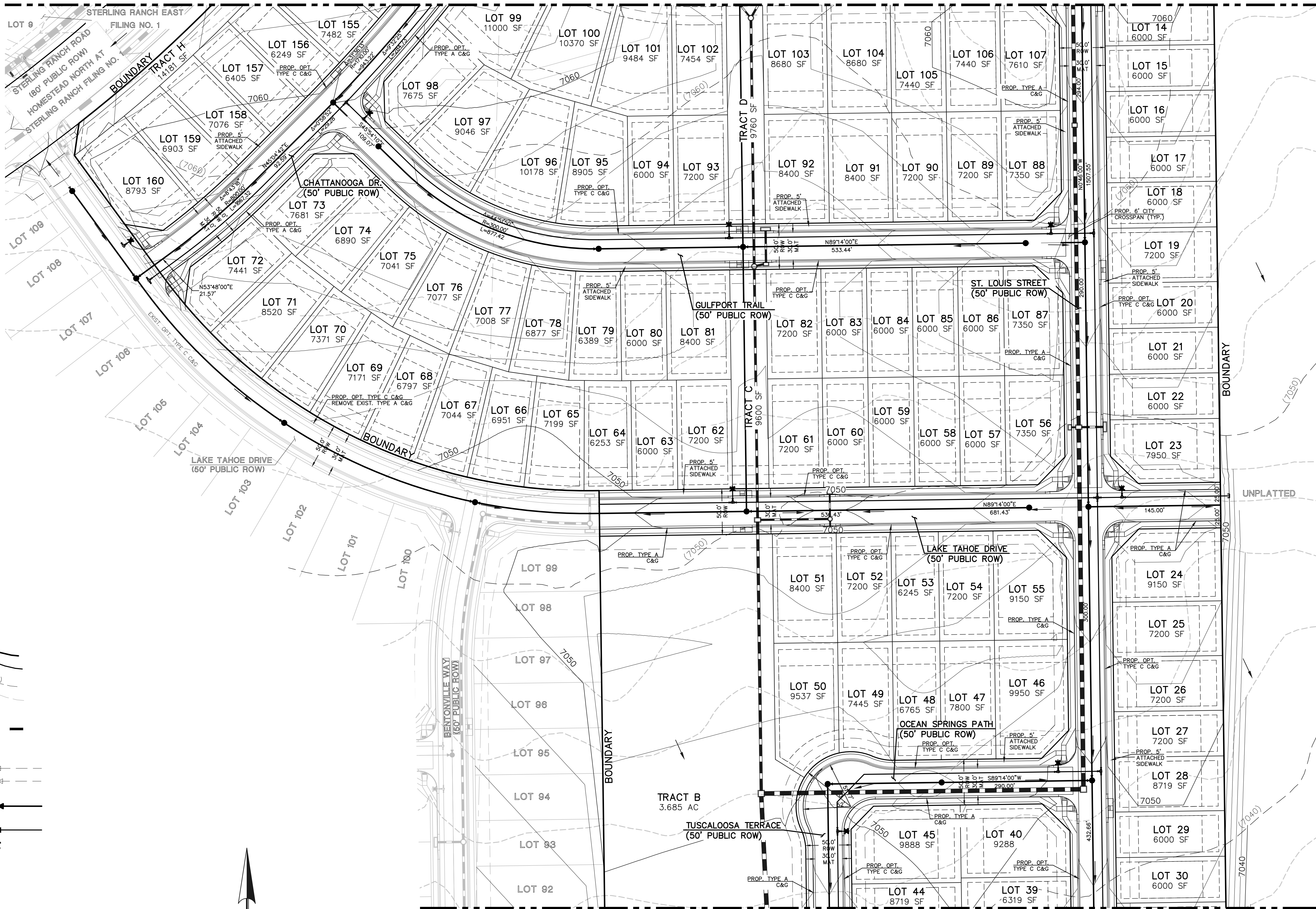
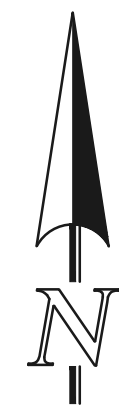
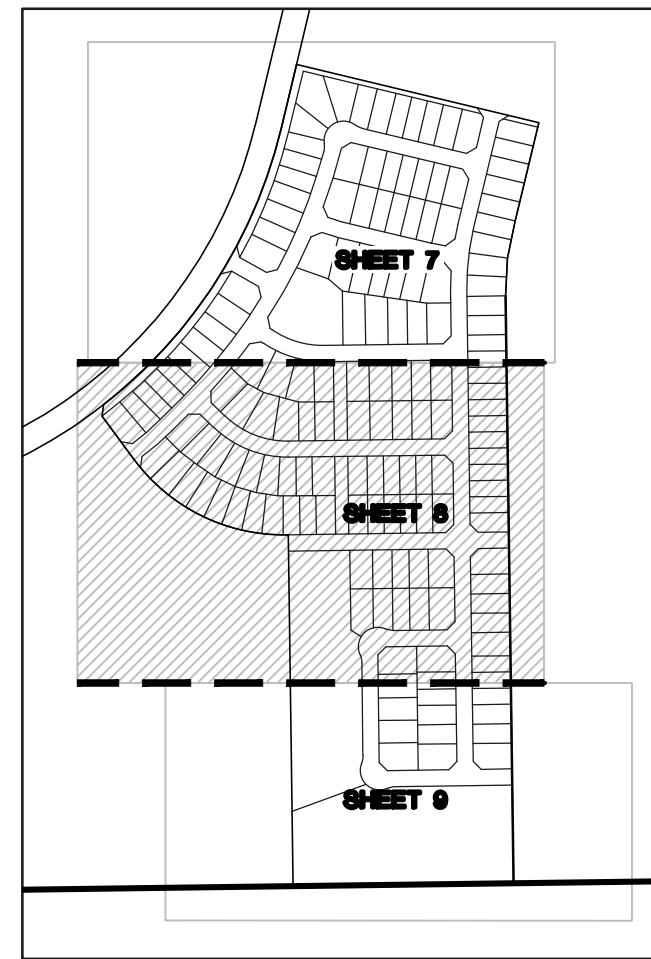
619 N. Cascade Avenue, Suite 200
Colorado Springs, Colorado 80903
(719) 785-0790
(719) 785-0799 (Fax)

STERLING RANCH EAST FILING NO. 5 PRELIMINARY PLAN PRELIMINARY GRADING & UTILITY PLAN			
DESIGNED BY	PRA	SCALE	DATE 05/12/2023
DRAWN BY	ESO	(H) 1" = 60'	SHEET 6 OF 8
CHECKED BY	(V) 1" = N/A	JOB NO.	1183.25



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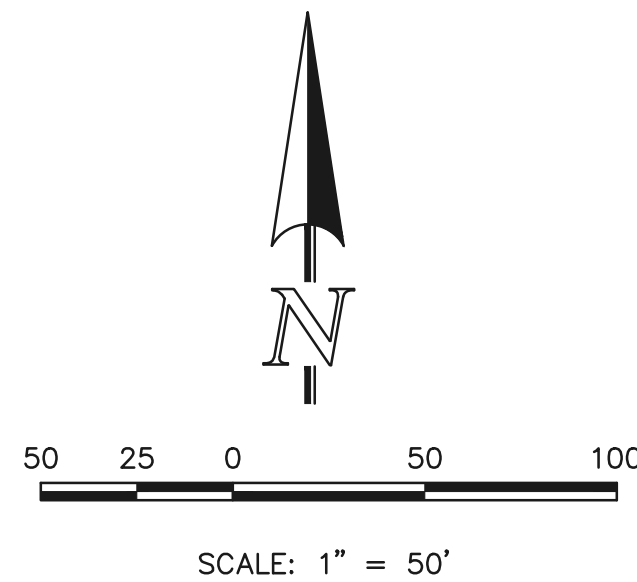
MATCHLINE~ (SEE SHEET 7)



LEGEND

- PROPOSED CONTOUR-10
- PROPOSED CONTOUR-2
- EXISTING CONTOUR-10
- EXISTING CONTOUR-2
- DIRECTION OF FLOW
- PHASE LINES
- EXISTING FIRE HYDRANT
- EXISTING WATER MAIN
- EXISTING SANITARY SEWER MAIN W/ MANHOLE
- PROPOSED SANITARY SEWER MAIN W/ MANHOLE
- PROPOSED WATER MAIN
- PROPOSED FIRE HYDRANT

NOTES:
 1. ALL TYPE C CURB & GUTTER IS THE OPTIONAL TYPE C CURB & GUTTER PER EPC STANDARDS
 2. ALL PROPOSED STORM ALIGNMENT AND INLET SIZING IS SCHEMATIC. FINAL DESIGN TO BE PROVIDED WITH CD'S AND FINAL DRAINAGE REPORT



MATCHLINE~ (SEE SHEET 9)

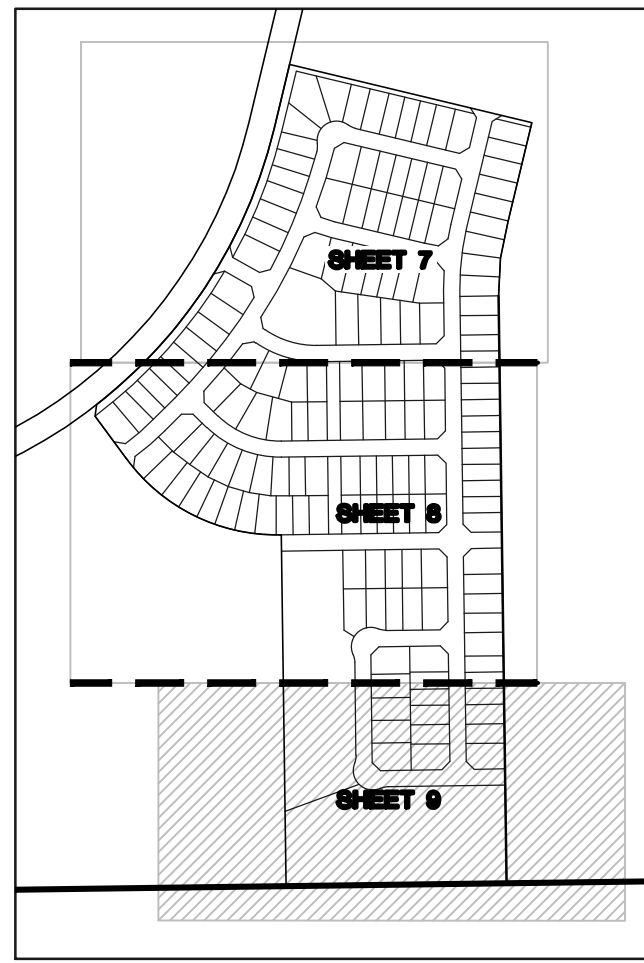
CLASSIC CONSULTING

STERLING RANCH EAST FILING NO. 5
 PRELIMINARY PLAN
 PRELIMINARY GRADING & UTILITY PLAN

DESIGNED BY	PRA	SCALE	DATE	05/12/2023
DRAWN BY	ESO	(H) 1" = 60'	SHEET	7 OF 8
CHECKED BY	(V) 1" = N/A	JOB NO.	1183.25	

619 N. Cascade Avenue, Suite 200 (719) 785-0790
 Colorado Springs, Colorado 80903 (719) 785-0799 (Fax)

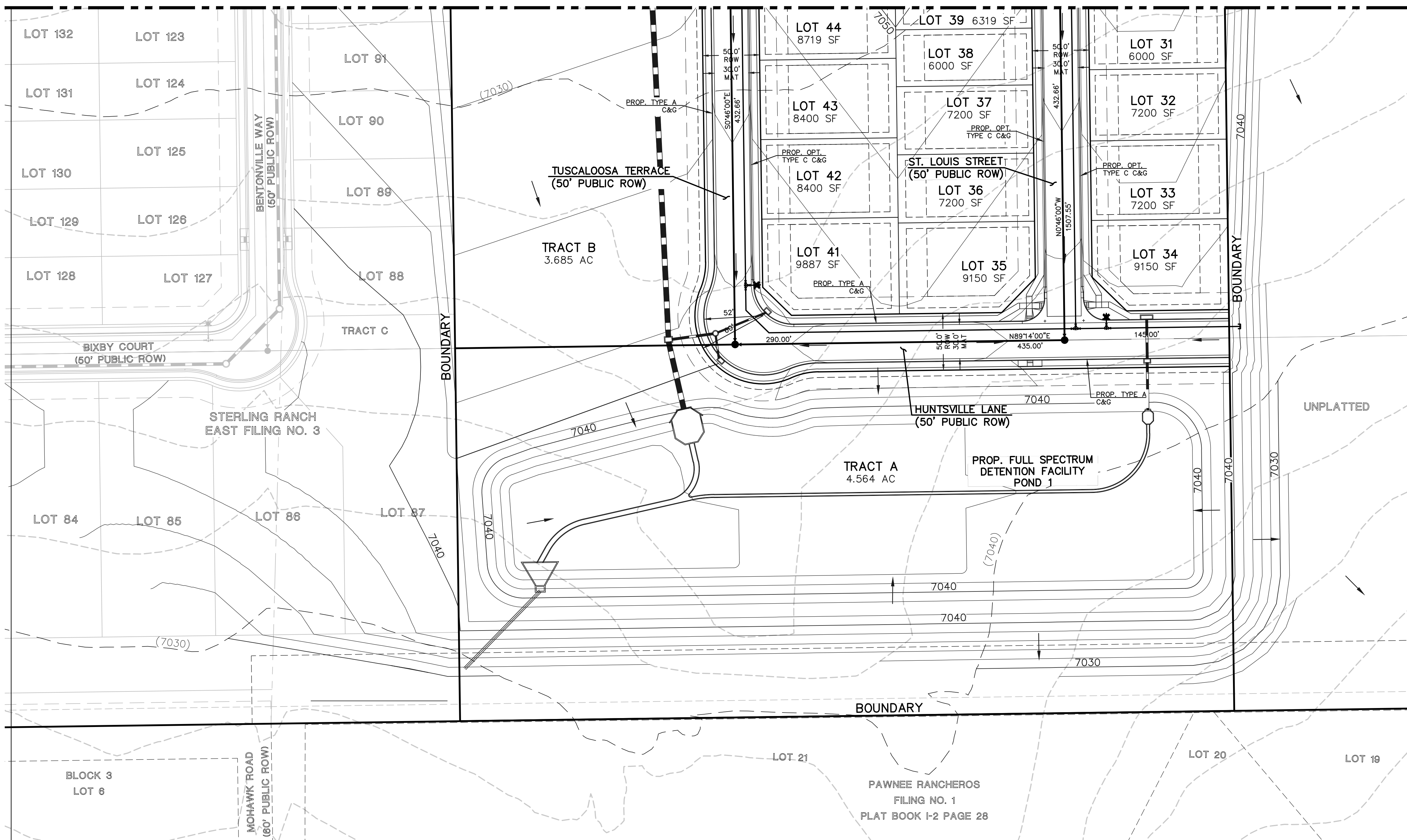
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SHEET INDEX
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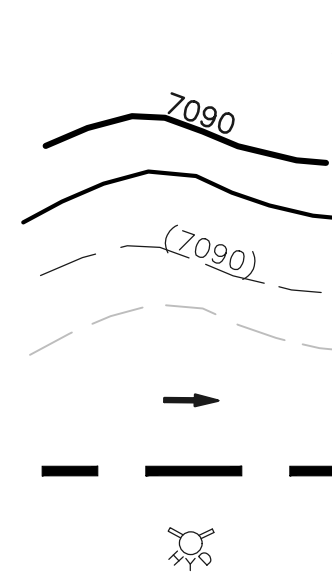


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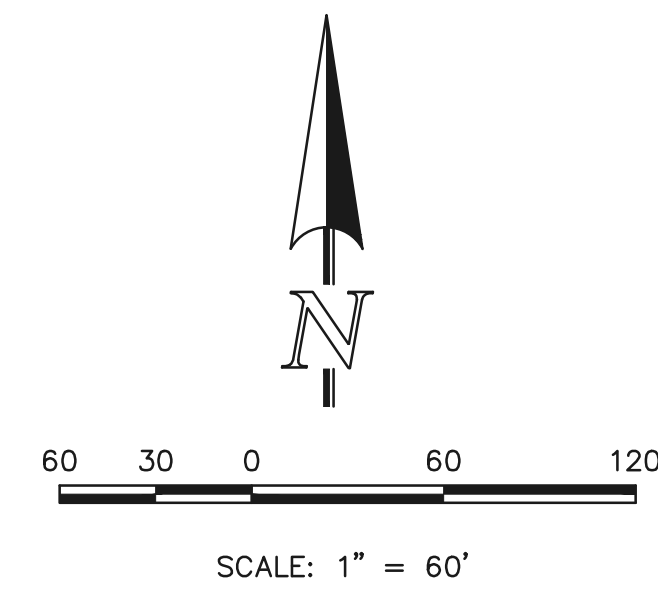
- NOTES:**
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- PROPOSED CONTOUR-10
PROPOSED CONTOUR-2
EXISTING CONTOUR-10
EXISTING CONTOUR-2
DIRECTION OF FLOW
PHASE LINES
EXISTING FIRE HYDRANT



LEGEND

- EXISTING WATER MAIN
EXISTING SANITARY SEWER MAIN W/ MANHOLE
PROPOSED SANITARY SEWER MAIN W/ MANHOLE
PROPOSED WATER MAIN
PROPOSED FIRE HYDRANT



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PRELIMINARY GRADING & UTILITY PLAN

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DRAWN BY	ESO	(H) 1" = 60'	SHEET	8 OF 8
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APPENDIX C

WATER RIGHTS DECREES



Appendix C

Listing of Decrees/Determinations/Deeds in Appendix

Decrees/Determinations

08 CW 113
86 CW 18
86 CW 19
17 CW 3002
18 CW 3002
20 CW 3059
91 CW 35

93 CW 018

85 CW 445

85 CW 131
1689 BD
1690 BD
1691 BD

Deeds

FAWWA Assignment
FAWWA Assignment
FAWWA Assignment

FAWWA Assignment
Classic SRJ Deed
Deed for first tranche Bar-X
Special Warranty Deed Bar-X Shamrock West

Special Warranty Deed Bar-X Shamrock West

Special Warranty Deed Bar-X Shamrock West

Special Warranty Deed McCune
Special Warranty Deed McCune
Special Warranty Deed McCune

DISTRICT COURT, WATER DIVISION 2
Court Address: 320 W. 10TH St., #203
Pueblo, CO 81003
Phone Number: (719) 583-7048

**CONCERNING THE APPLICATION OF
MORLEY-BENTLEY INVESTMENTS, LLC FOR
ADJUDICATION OF DENVER BASIN
GROUNDWATER**

IN EL PASO COUNTY.

Attorneys for Applicant:
William H. Fronczak, #35043
Christopher Sutton #4369
Perkins Coie LLP
1899 Wynkoop Street, Suite 700.
Denver, CO 80202
Phone Number: (303) 291-2300
Fax Number: (303) 291-2400
E-mail: wfronczak@perkinscoie.com

Δ COURT USE ONLY Δ

Case No: 08CW113

**FINDING OF FACT, CONCLUSIONS OF LAW, RULING OF THE REFEREE,
JUDGMENT AND DECREE**

FINDINGS OF FACT

1. Morley-Bentley Investments, LLC ("Applicant") filed an Application in this matter on December 31, 2008 (Applicant's mailing address is 20 Boulder Crescent, 2nd Floor, Colorado Springs, CO 80903).

2. Timely and adequate notice of this Application was duly published by the Water Clerk as required by statute on January 15, 2009, and publication costs have been paid. The Court has jurisdiction over the matters raised in the Application and all parties affected thereby, whether they have appeared or not. The lands and water rights involved in this Application are located within the boundaries of the Denver Basin.

3. The deadline for filing a Statement of Opposition was the last day of February 2009. A timely Statement of Opposition was filed by the City of Colorado Springs. Colorado Springs consents to entry of this Ruling. No other Opposer appears in this case.

4. On September 13, 2010, Applicant filed an Unopposed Motion to Amend Application. This motion amended the Application to remove the augmentation plan from the Application (Section III Application for Approval of a Plan for Augmentation).

5. By Order pursuant to C.R.C.P. 15 and Uniform Water Court Rule 4, entered on September 21, 2010, the Court granted Applicant's Unopposed Motion to Amend Application without the need of publication.

6. Applicant seeks to adjudicate and quantify the ground water contained within the Dawson and Denver aquifers underlying Applicant's Property. Applicant is the fee owner of approximately 1,451.44 acres in Sections 27, 28, 32, 33, and 34, Township 12 South, Range 65 West, and Section 4, Township 13 South, Range 65 West, El Paso County, Colorado, as more specifically described in attached Exhibit A ("Applicant's Property"). A map showing the Applicant's Property location is attached hereto.

7. Applicant also seeks to adjudicate and quantify the ground water contained within the Arapahoe and Laramie-Fox Hills aquifers underlying approximately 41.44 acres in the NW1/4 of Section 4, Township 13 South, Range 65 West and in the SE1/4 SW1/4 SE1/4 Section 32, Township 12 South, Range 65 West, of the 6th P.M. This 41.44 acres is a part of the Applicant's Property and is referred to herein as the Additional Property. The Additional Property location is identified on the attached map. The ground water contained within the Arapahoe and Laramie-Fox Hills underlying an approximately 1,410-acre portion of the Applicant's Property ("Previously Adjudicated Property") was previously adjudicated and quantified in Case Nos. 86CW18 and 86CW19 in the Water Court for Division 2, respectively.

8. On March 4, 2009, the Office of the State Engineer filed a Determination of Facts herein for the Dawson and Denver aquifers underlying Applicant's Property and the Arapahoe and Laramie-Fox Hills aquifers underlying the Additional Property. The Court has considered these filings in entering this Ruling and hereby adopts the Determination of Facts by reference herein. Copies of the Determination of Facts are also attached.

9. Applicant has not determined the specific locations for any new wells to be constructed into the Dawson and Denver aquifers on the Applicants Property, but agrees that each well constructed will be within Applicant's Property and designed so that it withdraws water from a single aquifer and is located at least 600 feet from any other well which withdraws from the same aquifer that is not under common ownership. Applicant claims the following pumping rates from the Dawson and Denver aquifers underlying Applicant's Property:

- Dawson – 150 gallons per minute.
- Denver – 150 gallons per minute.

10. Applicant has also not determined the specific locations for any new wells to be constructed into the Arapahoe and Laramie-Fox Hills aquifers on the Additional Property, but agrees that each well constructed will be within the Additional Property and designed so that it withdraws water from a single aquifer and is located at least 600 feet from any other well which withdraws from the same aquifer that is not under common ownership. Applicant claims the following pumping rates from the Arapahoe and Laramie-Fox Hills aquifers underlying Applicant's Property:

- Arapahoe – 150 gallons per minute.
- Laramie-Fox Hills – 150 gallons per minute

11. Based upon the attached map, the Determination of Facts quantified the Dawson and Denver ground water available underlying the Applicant's Property and the Arapahoe and Laramie-Fox Hills ground water underlying the Additional Property. Based upon a 100-year aquifer life, the following amounts of ground water are available to Applicant:

Aquifer	Sand Thickness (ft)	Annual Appropriation (af)	Status
Dawson	145.8	392.5 ¹	N-NT (actual)
Denver	313.8	728.9 ²	N-NT (4%)
Arapahoe	251.4	0.60 ³	N-NT (4%)
Laramie-Fox Hills	190	0.40 ³	NT

¹ Represents a reduction in the annual appropriation to prevent material injury to the vested water rights of 8745-R, 8746-R, 8747-R and 8748-R.

² Represents a reduction in the annual appropriation to prevent material injury to the vested water rights 19961-F and 26947-F.

³ Represents a reduction in the annual appropriation to prevent material injury to the vested water right decreed in Case No. 02CW66.

NT – Non-Tributary

N-NT(4 %) – Not Non-Tributary 4 percent replacement of the amount of groundwater withdrawn.

N-NT(actual) – Not Non-Tributary actual replacement of stream depletions.

12. The Application states, and the Determination of Facts finds, that the Laramie-Fox Hills aquifer underlying the Additional Property is non-tributary as defined in C.R.S §37-90-103(10.5). The Court adopts this finding. Accordingly, two percent of all withdrawals from this aquifer are required to be relinquished to the stream system.

13. The Application states, and Determination of Facts finds, that the Arapahoe aquifer underlying the Additional Property and the Denver underlying the Applicant's Property are not non-tributary as defined in C.R.S §37-90-103(10.5). The Determination of Facts also conclude that the Additional Property with respect to the Arapahoe aquifer and the Applicant's Property with respect to the Denver aquifer are located greater than one mile from any point of contact between any natural surface stream, including its alluvium, and these aquifers. The Court adopts this finding. Accordingly, water from the Arapahoe aquifer underlying the Additional Property and the Denver underlying the Applicant's Property cannot be used until a plan for augmentation is approved by the Court to replace depletions caused by pumping this ground water pursuant to C.R.S. §§37-90-137(9)(c) and 37-92-302(1). Such an augmentation plan shall provide for the replacement of affected stream systems or system of a total amount of water equal to four percent (4%) of the amount of water withdrawn on an annual basis from each aquifer.

14. The Application states, and the Determination of Facts finds, that the ground water in the Dawson aquifer underlying the Applicant's Property is not non-tributary as defined in C.R.S. §37-90-103(10.5). The Court adopts this finding. Accordingly, water from this aquifer cannot be used until a plan for augmentation is approved by the Court to replace depletions caused by pumping this ground water pursuant to §§37-90-137(9)(c) and 37-92-302(1). Such an augmentation plan shall provide for the replacement of actual stream depletions to the extent necessary to prevent any injurious effect.

15. Applicant seeks to adjudicate the above ground water for domestic, agricultural, industrial, municipal, commercial, irrigation, recreational, aesthetic, piscatorial, fire protection, augmentation, exchange and storage, and successive reuse to extinction so long as such reuse is augmented when necessary. Applicant also seeks to use such water by immediate application or by storage and subsequent application to the beneficial uses and purposes stated herein.

16. Applicant requests the Court determine that Applicant may withdraw full legal entitlement from the Dawson and Denver aquifers underlying Applicant's Property through any combination of wells. Applicant requests that these wells to each respective aquifer be treated as a well field. Applicant also requests that it be entitled to withdraw an amount of ground water in excess of the average annual amount decreed to these aquifers beneath the Applicant's Property, so long as the sum of the total withdrawals from all the wells in the respective aquifer does not exceed the product of the number of years since the date of issuance of the original well permit or the date of entry of a decree, whichever comes first, multiplied by the average annual volume of water which the Applicant is entitled to withdraw from that aquifer underlying the Applicant's Property.

17. As to the not non-tributary Arapahoe and non-tributary Laramie-Fox Hills aquifers underlying the Additional Property, Applicant requests that it be entitled to withdraw those quantities of ground water quantified herein, along with that ground water previously quantified in 86CW18 and 86CW19, respectively, from common structures, in consideration of the contiguity of the overlying land between such adjudications (i.e. Applicant's Property).

Applicant also requests that it be entitled to withdraw an amount of ground water in excess of the average annual amount decreed to the respective aquifer beneath the Additional Property, so long as the sum of the total withdrawals from all the wells in the aquifers do not exceed the product of the number of years since the date of issuance of the first well permit, multiplied by the average annual volume of water which the Applicant is entitled to withdraw from the aquifers underlying the Additional Property.

18. Applicant also requests that the Court retain jurisdiction over this matter to make adjustments in the allowed annual average amount of withdrawal, either upwards or downwards, to conform to actual local aquifer characteristics. The Court will retain jurisdiction in this matter pursuant to paragraph 29 of this Ruling to make any necessary adjustments, and such adjustments shall be made by the Court without Applicant having to refile, republish, or otherwise amend this Application.

CONCLUSIONS OF LAW

19. The Court has jurisdiction in this matter pursuant to C.R.S. §§37-90-137(6), 37-92-203(1), and 37-32-302 through 305.

20. The Court concluded that the Application in this matter is one contemplated by law. The Application for a decree confirming Applicant's right to divert and use not non-tributary ground water from the Dawson and Denver underlying the Applicants Property and the not non-tributary Arapahoe and non-tributary Laramie Fox Hills aquifers underlying the Additional Property, pursuant to C.R.S. §§ 37-90-137(4) and 37-90-137(9)(c), should be granted subject to the provision of this decree. The rights confirmed by the by this decree are vested property rights.

21. Timely and adequate notice of the filing and contents of the Application herein was given in the manner required by law, and no additional notice is required. C.R.S. § 37-92-302(3).

22. The Court concludes that the rights to ground water determined herein are not conditional water rights and subsequent showing or finding of reasonable diligence under C.R.S. § 37-32-301(4) are inapplicable and need not be made. Accordingly, each of the water rights adjudicated herein is a final water right.

23. The Court concludes that the rights to ground water determined in this decree do not in any way affect, modify or otherwise change this Court's adjudication, status or quantification of the Arapahoe and Laramie-Fox Hills ground water previously adjudicated in Case Nos. 86CW18 and 86CW19, respectively.

24. The water rights described above are capable of administration by the state water officials.

RULING

25. The provisions of paragraphs 1-24 above are incorporated herein and made a part of the Court's Ruling.

26. Applicant's request for adjudication of the Dawson and Denver ground water underlying the Applicant's Property and the Arapahoe and Laramie-Fox Hills ground water underlying the Additional Property as described in paragraphs 5 through 11 above are hereby granted subject to the terms and conditions set forth herein.

27. Applicant must apply for well permits for all new wells to be constructed within the Laramie-Fox Hills on the Additional Property. The State Engineer shall evaluate those applications pursuant to C.R.S. § 37-90-137(2) consistent with the terms and conditions of the final decree entered herein. Permits shall not be unreasonably withheld. Applicant shall meter and record all well use for reporting purposes.

28. Withdrawal of ground water from the not non-tributary Dawson and Denver underlying the Applicant's Property and the not non-tributary Arapahoe aquifer underlying the Additional Property shall be prohibited without a Court approved augmentation plan and well permits issued by the State Engineer.

29. The Court shall retain jurisdiction over this matter for the purpose of reconsidering the question of injury to the vested water rights of others pursuant to this paragraph. The decree herein grants water rights from the Dawson and Denver underlying the Applicant's Property and the Arapahoe and Laramie-Fox Hills aquifers underlying the Additional Property. The Court retains jurisdiction to provide for adjustment of the average annual amount of withdrawal to conform to actual local aquifer characteristics as determined from analyses of data obtained when the wells are constructed or analysis of other acceptable geophysical information as provided in Statewide Nontributary Rules 2 C.C.R. 402-7. Within 60 days after completion of such well(s) or test hole(s), Applicant shall file with the State Engineer copies of the well logs from such well(s) or test hole(s). Any person, including the State Engineer, may invoke the Court's retained jurisdiction to make a Final Determination of Water Right. The State Engineer, upon notice of the invocation of such retained jurisdiction, shall use the data available to him and make a Final Determination of Water Rights Findings within four (4) months thereafter and submit the same event of a protest or in the event the State Engineer makes no determination within four (4) months after the Court's retained jurisdiction is invoked, such final determination shall be made by the Court after notice and a hearing.

30. This Ruling shall be mailed as required by statute.

Dated: March 11, 2011.

BY THE WATER REFEREE:



Mardell R. DiDomenico
Water Referee

JUDGMENT AND DECREE

The foregoing Ruling comes before the Court after the time period for raising objections to the same pursuant to C.R.S. §37-92-304(2) has expired. The Court, having reviewed the Ruling and being familiar with the terms of the same, hereby approves and enters said Ruling as a Judgment and Decree of this Court pursuant to C.R.S. §37-92-304(5).

DONE this ____ day of _____, 2010.

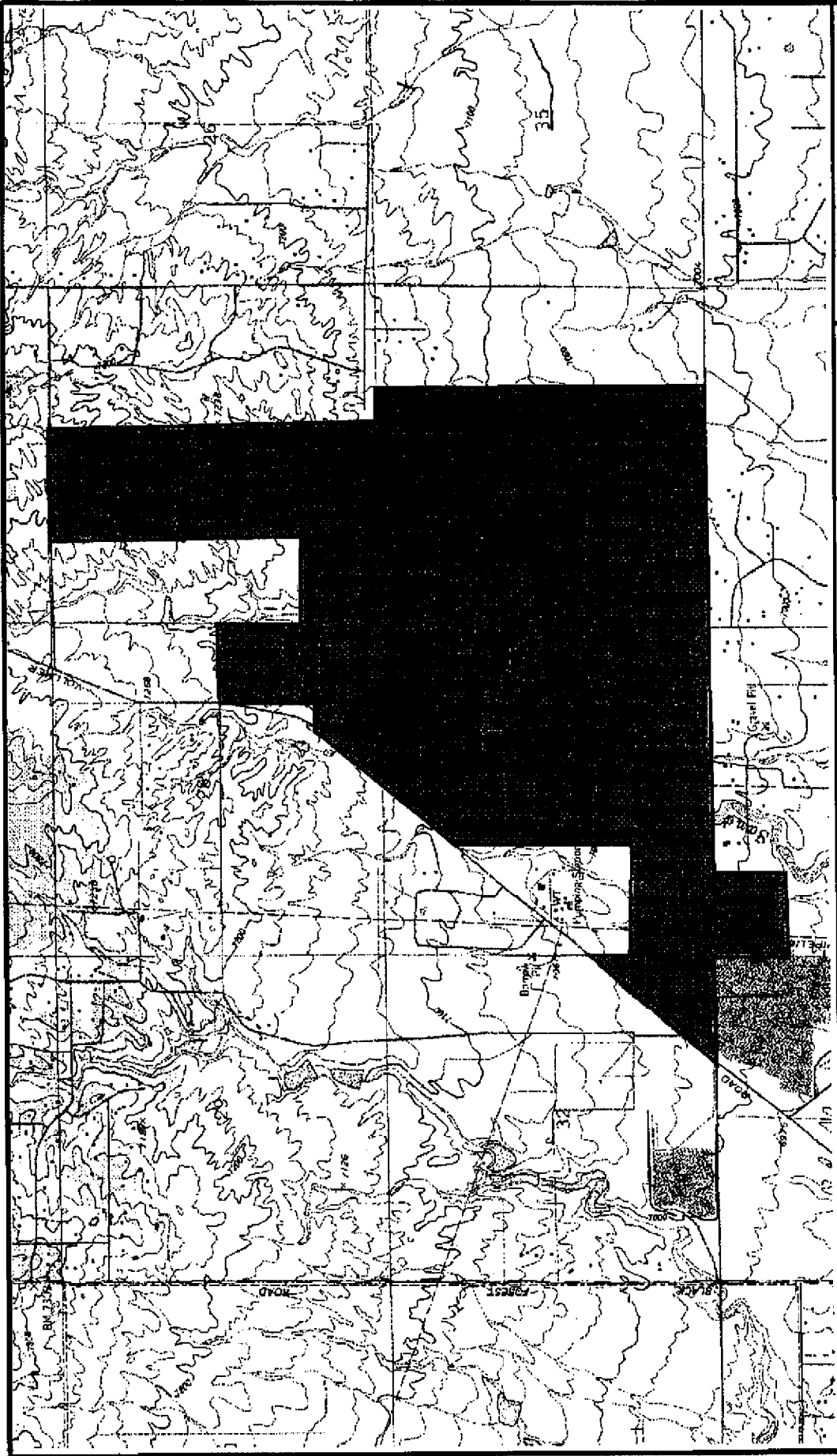
BY THE COURT:

Dennis Maes, Water Judge
Water Division 2

EXHIBIT A – Applicant Property

The Subject Lands consist of the following:

The W1/2 W1/2 E1/2 and the E1/2 W1/2 and the SW1/4 SW1/4 of Section 27; the E1/2 SE1/4 and that portion of the SW1/4 SE1/4 lying South and East of the County Road across said premises, both in Section 28; that portion of the SE1/4 SE1/4 of Section 32 lying South and East of said County Road, that portion of the NE1/4 SE1/4 of said Section 32, lying South and East of said County Road, and that portion of the SE1/4 SW1/4 SE1/4 of Section 32 beginning at the SE corner of the SE1/4 SW1/4 SE1/4, then northerly along the east line of the SE1/4 SW1/4 SE1/4 a distance of 495 feet to a point on Vollmer Road, then southwesterly along Vollmer Road 660 feet to a point on the south line, then easterly 495 feet to the point of beginning; the E1/2 and the E1/2 SW1/4 and the SW1/4 SW1/4 of Section 33, and all that part of the NW1/4 of said Section 33 lying South and East of the said County Road across said premises, except that portion of the SW1/4 NW1/4 of said Section 33 lying South and East of said County Road containing approximately 10 acres deeded to Colorado Interstate Gas Company by Warranty Deed recorded in Book 1173 at Page 359 of the El Paso County Records; and the W1/2 E1/2 and the W1/2 of Section 34, all in Township 12 South, Range 65 West of the 6th P.M., located in El Paso County, Colorado. The NW1/4 of the NW1/4 of Section 4, Township 13 South, Range 65 West of the 6th P.M., located in El Paso County, Colorado.



<p>Figure 1: Sterling Ranch Denver Basin Parcels</p>	
<p>JR Engineering, LLC 2620 E. Prospect Rd., Ste 190 Fort Collins, CO 80525 (970) 491-9888 jr@jrengineering.com</p>	<p>Client: North-Bendy Inc. JN: 2000-9764</p>
<p>Legend</p> <ul style="list-style-type: none"> Sterling ranchship Pbn wvwp.stip 	<p>Dec 29, 2008 Page 5</p>



OFFICE OF THE STATE ENGINEER
DETERMINATION OF FACTS

FILED Document – District Court
2008CW113

CO Pueblo County District Court 10th JD

Filing Date: Mar 6 2009 1:13PM MST

File # 16-2409-914

Review Clerk: Mardell Didomenico

IN THE MATTER OF AN APPLICATION FOR UNDERGROUND WATER RIGHTS IN WATER
DIVISION NO. 2, EL PASO COUNTY, COLORADO

CASE NO.: 08CW113

APPLICANT: MORLEY-BENTLEY INVESTMENTS, LLC

AQUIFER : DAWSON

In compliance with C.R.S. 37-92-302(2), Morley-Bentley Investments, LLC, (hereinafter "applicant") submitted an application to the Water Court for a determination of the amount of water available pursuant to C.R.S. 37-90-137(4). Based on information provided to the Court by the applicant and records of the Division of Water Resources, the State Engineer finds as follows:

1. The application was received by the Water Court on December 31, 2008.
2. According to the application, the applicant owns, or has consent to withdraw ground water underlying 1451.44 acres of land as further described in said application.
3. The quantity of water in the Dawson Aquifer (hereinafter "aquifer"), exclusive of artificial recharge, underlying the 1451.44 acres of land claimed in the application is 42,309 acre-feet. This determination was based on the following as specified in the Denver Basin Rules:
 - a. The average specific yield of the saturated aquifer materials underlying the land claimed in the application is 20 percent.
 - b. The average thickness of the saturated aquifer materials underlying the land claimed in the application is 145.8 feet.
4. In determining the amount of ground water available for withdrawal annually from this aquifer, the provisions of C.R.S. 37-90-137(4) must be applied, and pursuant to C.R.S. 37-90-137(4)(b)(I) annual withdrawals shall be allowed on the basis of an aquifer life of 100 years.
5. A review of the records in the State Engineer's Office has disclosed that there are existing wells or other water rights withdrawing ground water from the aquifer underlying the land claimed by the applicant. The well permit numbers, locations, rates of diversion, and other relevant data concerning such rights are set forth in the attached Exhibit A. To prevent material injury to such vested water rights, the quantity of water underlying the land claimed in the application which is considered available for withdrawal has been reduced to 39,247 acre-feet. This reduction was based on a calculation of the area necessary to provide a quantity of water underlying such lands as would be sufficient for the persons entitled to divert water under existing rights to divert the average annual amount of water from the aquifer for the minimum aquifer life of 100 years. The effect of this calculation is

to reduce the land available for calculating the quantity of water underlying the land claimed in the application to 1,345.92 acres.

6. Withdrawal of ground water from the aquifer underlying the land claimed in the application will within one hundred years, deplete the flow of a natural stream at an annual rate greater than one-tenth of one percent of the annual rate of withdrawal and therefore the ground water is not nontributary ground water as defined in C.R.S. 37-90-103(10.7). C.R.S. 37-90-137(9)(c) states that judicial approval of a plan for augmentation shall be required prior to use of ground water of the type sought in this application. In the case of the Dawson aquifer such augmentation plans shall provide for the replacement of actual stream depletions to the extent necessary to prevent any injurious effect, based on actual aquifer conditions in existence at the time of the decree.
7. The allowed average annual amount of water available for withdrawal from the aquifer underlying the lands claimed in the application is 392.5 acre-feet (the quantity of water which is considered available divided by the 100 year aquifer life). It is recommended that the water court retain jurisdiction necessary to provide for adjustment (increase or decrease) of this amount.
8. Underlying the land claimed in the application, the aquifer is, as specified in the Denver Basin Rules, located approximately 54 feet to 346 feet below land surface. A site specific evaluation must be conducted with each well permit to identify the interval due to the varied elevation of the aquifer and surface topography.

Dated this 4th day of March, 2009.



Dick Wolfe, P.E.
Director/State Engineer

By: 

Sarah Reinsel
Water Resources Engineer

EXHIBIT A

<u>Well Number</u>	<u>Location</u>					<u>AF</u>	<u>ST</u>	<u>SY</u>	<u>Radius</u>	<u>Area</u>
	<u>Q40</u>	<u>Q160</u>	<u>Sec.</u>	<u>Twp.</u>	<u>Rng.</u>					
8745-R	NE	SW	33	12S	65W	24.2	109	20	1240	87
8746-R	NE	SW	33	12S	65W	16.1	112	20	1001	71
8747-R	NE	SW	33	12S	65W	12.9	114	20	886	57
8748-R	NE	SW	33	12S	65W	16.1	109	20	1011	74

Well Number = Well permit number and/or water court case number

AF = Annual appropriation of the well (acre-feet)

ST = Thickness of the saturated aquifer material at the well location (feet)

SY = Specific Yield of the saturated aquifer material (%)

Radius = Radius of the cylinder of appropriation (feet)

Area = Area of the applicant's land that is overlapped by the cylinder of appropriation (acres)

OFFICE OF THE STATE ENGINEER
DETERMINATION OF FACTS

FILED Document – District Court
2008CW113

IN THE MATTER OF AN APPLICATION FOR UNDERGROUND WATER RIGHTS IN WATER
DIVISION NO. 2, EL PASO COUNTY, COLORADO

CO Pueblo County District Court 10th JD
Filing Date: Mar 6 2009 1:13 PM MST
Filing ID: 24095714
Review Clerk: Mardell Didomenico

CASE NO.: 08CW113

APPLICANT: MORLEY-BENTLEY INVESTMENTS, LLC

AQUIFER : DENVER

In compliance with C.R.S. 37-92-302(2), Morley-Bentley Investments, LLC, (hereinafter "applicant") submitted an application to the Water Court for a determination of the amount of water available pursuant to C.R.S. 37-90-137(4). Based on information provided to the Court by the applicant and records of the Division of Water Resources, the State Engineer finds as follows:

1. The application was received by the Water Court on December 31, 2008.
2. According to the application, the applicant owns, or has consent to withdraw ground water underlying 1,451.44 acres of land as further described in said application.
3. The quantity of water in the Denver Aquifer (hereinafter "aquifer"), exclusive of artificial recharge, underlying the 1,451.44 acres of land claimed in the application is 77,416 acre-feet. This determination was based on the following as specified in the Denver Basin Rules:
 - a. The average specific yield of the saturated aquifer materials underlying the land claimed in the application is 17 percent.
 - b. The average thickness of the saturated aquifer materials underlying the land claimed in the application is 313.8 feet.
4. In determining the amount of ground water available for withdrawal annually from this aquifer, the provisions of C.R.S. 37-90-137(4) must be applied, and pursuant to C.R.S. 37-90-137(4)(b)(I) annual withdrawals shall be allowed on the basis of an aquifer life of 100 years.
5. A review of the records in the State Engineer's Office has disclosed that there are existing wells or other water rights withdrawing ground water from the aquifer underlying the land claimed by the applicant. The well permit numbers, locations, rates of diversion, and other relevant data concerning such rights are set forth in the attached Exhibit A. To prevent material injury to these vested water rights, the land available for calculating the quantity of water underlying the land claimed in the application is reduced to 1,410.00 acres. The effect of this calculation is to reduce the quantity of water underlying the land claimed in the application which is considered available for withdrawal to 72,893 acre-feet.

6. Withdrawal of ground water from the aquifer underlying the land claimed in the application will, within one hundred years, deplete the flow of a natural stream at an annual rate greater than one-tenth of one percent of the annual rate of withdrawal and therefore the ground water is not nontributary ground water as defined in C.R.S. 37-90-103(10.5). The land is more than one mile from any point of contact between any natural surface stream, including its alluvium, and the aquifer. C.R.S. 37-90-137(9)(c) states that judicial approval of a plan for augmentation shall be required prior to the use of ground water of the type sought in this application. In the case of the subject application, such augmentation plan shall provide for the replacement to affected stream systems or system of a total amount of water equal to four percent (4%) of the amount of water withdrawn on an annual basis and such additional amounts that may be required pursuant to Section 37-90-137(9)(c), C.R.S. (1986 Supp).
7. The allowed average annual amount of water available for withdrawal from the aquifer underlying the lands claimed in the application is 728.9 acre-feet (the quantity of water which is considered available divided by the 100 year aquifer life). It is recommended that the water court retain jurisdiction necessary to provide for adjustment (increase or decrease) of this amount.
8. Underlying the land claimed in the application, the aquifer is, as specified in the Denver Basin Rules, located approximately 380 feet to 1,270 feet below land surface. A site specific evaluation must be conducted with each well permit to identify the interval due to the varied elevation of the aquifer and surface topography.

Dated this 4th day of March, 2009.



Dick Wolfe, P.E.
Director/State Engineer



Sarah Reinsel
Water Resources Engineer

Prepared by: SKR

Case No.: 08CW113
Applicant: Morley-Bentley Investments, LLC
Aquifer: Denver

EXHIBIT A

<u>Well Number</u>	<u>Location</u>					<u>AF</u>	<u>Area</u>
	<u>Q40</u>	<u>Q160</u>	<u>Sec.</u>	<u>Twp.</u>	<u>Rng.</u>		
19961-F	NE	NE	5	13S	65W	58	1.44
26947-F	SW	SW	32	12S	65W	20.3	40

Well Number = Well permit number and/or water court case number

AF = Annual appropriation of the well (acre-feet)

Area = Area of the applicant's land that is overlapped by the previous allocation (acres)

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DETERMINATION OF FACTS

FILED Document – District Court
2008CW113

IN THE MATTER OF AN APPLICATION FOR UNDERGROUND WATER RIGHTS IN WATER
DIVISION NO. 2, EL PASO COUNTY, COLORADO

CO Pueblo County District Court 10th JD
FILED: 2009 JAN 13 PM 5:11
Filing ID: 24095714
Review Clerk: Mardell Didomenico

CASE NO.: 08CW113

APPLICANT: MORLEY-BENTLEY INVESTMENTS, LLC

AQUIFER : ARAPAHOE

In compliance with C.R.S. 37-92-302(2), Morley-Bentley Investments, LLC, (hereinafter "applicant") submitted an application to the Water Court for a determination of the amount of water available pursuant to C.R.S. 37-90-137(4). Based on information provided to the Court by the applicant and records of the Division of Water Resources, the State Engineer finds as follows:

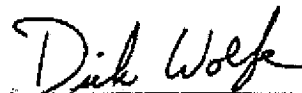
1. The application was received by the Water Court on December 31, 2008.
2. According to the application, the applicant owns, or has consent to withdraw ground water underlying 41.44 acres of land as further described in said application.
3. The quantity of water in the Arapahoe Aquifer (hereinafter "aquifer"), exclusive of artificial recharge, underlying the 41.44 acres of land claimed in the application is 1,771 acre-feet. This determination was based on the following as specified in the Denver Basin Rules:
 - a. The average specific yield of the saturated aquifer materials underlying the land claimed in the application is 17 percent.
 - b. The average thickness of the saturated aquifer materials underlying the land claimed in the application is 251.4 feet.
4. In determining the amount of ground water available for withdrawal annually from this aquifer, the provisions of C.R.S. 37-90-137(4) must be applied, and pursuant to C.R.S. 37-90-137(4)(b)(I) annual withdrawals shall be allowed on the basis of an aquifer life of 100 years.
5. A review of the records in the State Engineer's Office has disclosed that there is an existing decreed water right to withdraw ground water from the aquifer underlying a portion of the land claimed by the applicant. Case no. 02CW66 was approved by the Division 2 Water Court on December 3, 2002 to allow for the withdrawal of ground water from the aquifer underlying 132 acres, 40 acres of which overlaps the applicant's claimed overlying land area. To prevent material injury to this vested water right, the land available for calculating the quantity of water underlying the land claimed in the application is reduced to 1.44 acres. The effect of this calculation is to reduce the quantity of water underlying the land claimed in the application which is considered available for withdrawal to 61.5 acre-feet.

Case No.: 08CW113
Applicant: Morley-Bentley Investments, LLC
Aquifer: Arapahoe


Page 2

6. Withdrawal of ground water from the aquifer underlying the 1.44 acres of available land claimed in the application will, within one hundred years, deplete the flow of a natural stream at an annual rate greater than one-tenth of one percent of the annual rate of withdrawal and therefore the ground water is not nontributary ground water as defined in C.R.S. 37-90-103(10.5). The land is more than one mile from any point of contact between any natural surface stream, including its alluvium, and the aquifer. C.R.S. 37-90-137(9)(c) states that judicial approval of a plan for augmentation shall be required prior to the use of ground water of the type sought in this application. In the case of the subject application, such augmentation plan shall provide for the replacement to affected stream systems or system of a total amount of water equal to four percent (4%) of the amount of water withdrawn on an annual basis and such additional amounts that may be required pursuant to Section 37-90-137(9)(c), C.R.S. (1986 Supp).
7. The allowed average annual amount of water available for withdrawal from the aquifer underlying the lands claimed in the application is 0.6 acre-feet (the quantity of water which is considered available divided by the 100 year aquifer life). It is recommended that the water court retain jurisdiction necessary to provide for adjustment (increase or decrease) of this amount.
8. Underlying the land claimed in the application, the aquifer is, as specified in the Denver Basin Rules, located approximately 1,122 feet to 1,628 feet below land surface. A site specific evaluation must be conducted with each well permit to identify the interval due to the varied elevation of the aquifer and surface topography.

Dated this 4th day of March, 2009.



Dick Wolfe, P.E.
Director/State Engineer

By: 

Sarah Reinsel
Water Resources Engineer

Prepared by: SKR

OFFICE OF THE STATE ENGINEER
DETERMINATION OF FACTS

FILED Document -- District Court
2008CW113

CO Pueblo County District Court 10th JD

IN THE MATTER OF AN APPLICATION FOR UNDERGROUND
DIVISION NO. 2, EL PASO COUNTY, COLORADO

Filing Date: Mar. 6 2009 1:12PM MST

Case ID: 20090314

Review Clerk: Mardell Didomenico

CASE NO.: 08CW113

APPLICANT: MORLEY-BENTLEY INVESTMENTS, LLC

AQUIFER : LARAMIE-FOX HILLS

In compliance with C.R.S. 37-92-302(2), Morley-Bentley Investments, LLC, (hereinafter "applicant") submitted an application to the Water Court for a determination of the amount of water available pursuant to C.R.S. 37-90-137(4). Based on information provided to the Court by the applicant and records of the Division of Water Resources, the State Engineer finds as follows:

1. The application was received by the Water Court on December 31, 2008.
2. According to the application, the applicant owns, or has consent to withdraw ground water underlying 41.44 acres of land as further described in said application.
3. The quantity of water in the Laramie-Fox Hills Aquifer (hereinafter "aquifer"), exclusive of artificial recharge, underlying the 41.44 acres of land claimed in the application is 1,181 acre-feet. This determination was based on the following as specified in the Denver Basin Rules:
 - a. The average specific yield of the saturated aquifer materials underlying the land claimed in the application is 15 percent.
 - b. The average thickness of the saturated aquifer materials underlying the land claimed in the application is 190.0 feet.
4. In determining the amount of ground water available for withdrawal annually from this aquifer, the provisions of C.R.S. 37-90-137(4) must be applied, and pursuant to C.R.S. 37-90-137(4)(b)(I) annual withdrawals shall be allowed on the basis of an aquifer life of 100 years.
5. A review of the records in the State Engineer's Office has disclosed that there is an existing decreed water right to withdraw ground water from the aquifer underlying a portion of the land claimed by the applicant. Case no. 02CW66 was approved by the Division 2 Water Court on December 3, 2002 to allow for the withdrawal of ground water from the aquifer underlying 132 acres, 40 acres of which overlaps the applicant's claimed overlying land area. To prevent material injury to this vested water right, the land available for calculating the quantity of water underlying the land claimed in the application is reduced to 1.44 acres. The effect of this calculation is to reduce the quantity of water underlying the land claimed in the application which is considered available for withdrawal to 41.0 acre-feet.

Case No.: 08CW113
Applicant: Morley-Bentley Investments, LLC
Aquifer: Laramie-Fox Hills

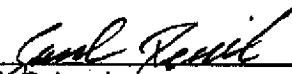
Page 2

6. Withdrawal of ground water from the aquifer underlying the land claimed in the application will not, within one hundred years, deplete the flow of a natural stream at an annual rate greater than one-tenth of one percent of the annual rate of withdrawal and therefore the ground water is nontributary ground water as defined in C.R.S. 37-90-103(10.5). Pursuant to C.R.S. 37-90-137(9)(b) and the Denver Basin Rules, no more than 98% of the nontributary ground water withdrawn annually shall be consumed and the applicant shall demonstrate to the reasonable satisfaction of the State Engineer that no more than 98% of the water withdrawn will be consumed prior to the issuance of a well permit.
7. The allowed average annual amount of water available for withdrawal from the aquifer underlying the lands claimed in the application is 0.4 acre-feet (the quantity of water which is considered available divided by the 100 year aquifer life). It is recommended that the water court retain jurisdiction necessary to provide for adjustment (increase or decrease) of this amount.
8. Underlying the land claimed in the application, the aquifer is, as specified in the Denver Basin Rules, located approximately 1,921 feet to 2,204 feet below land surface. A site specific evaluation must be conducted with each well permit to identify the interval due to the varied elevation of the aquifer and surface topography.

Dated this 4th day of March, 2009.



Dick Wolfe, P.E.
Director/State Engineer

By: 

Sarah Reinsel
Water Resources Engineer

Prepared by: SKR

DISTRICT COURT, WATER DIVISION NO. 2, STATE OF COLORADO OCT 29 1986

Case No. 86-CW-18

Russell J. Lyons

FINDINGS OF FACT, CONCLUSIONS OF LAW, JUDGMENT AND DECREE Clerk

CONCERNING THE APPLICATION FOR NONTRIBUTARY GROUND WATER RIGHTS OF THE FIRST INTERSTATE BANK OF DENVER N.A., CARLA W. LEWIS, AND SAMUEL S. SHERMAN AS COTRUSTEES UNDER THE LIFE INSURANCE TRUST OF THOMAS M. DINES FROM THE ARAPAHOE FORMATION, EL PASO COUNTY.

THIS MATTER, having come on ~~for hearing before the~~ Court this 29 day of Oct., 1986 upon the application of The First Interstate Bank of Denver N.A., Carla W. Lewis, and Samuel S. Sherman as Cotrustees under the Life Insurance Trust of Thomas M. Dines ("Applicants") and the Court having considered the pleadings filed and the evidence presented, and being fully advised in the premises, hereby enters the following Findings of Fact, Conclusions of Law, and Judgment and Decree: *get*

FINDINGS OF FACT

1. The Applicants are The First Interstate Bank of Denver N.A., Carla W. Lewis, and Samuel S. Sherman as Cotrustees under the Life Insurance Trust of Thomas M. Dines whose address is First Interstate Bank of Denver, 633 Seventeenth Street, Denver, Colorado 80202, Attn: Jack Alexander. Applicants filed the application in this case styled Application For Nontributary Ground Water From The Arapahoe Formation (the "Application") on March 28, 1986, seeking an adjudication of nontributary ground water rights from the Arapahoe Formation underlying lands owned by Applicants in El Paso County.

2. Timely and adequate notice of the Application was published as required by statute, and the Court has jurisdiction over the subject matter of this proceeding and over all parties affected hereby, whether they have appeared or not. None of the lands or water rights involved in this case are within the boundaries of a designated groundwater basin.

3. A timely statement of opposition was filed by JVRC, Inc. No other statements of opposition were filed within the time provided by law nor did any other parties enter their appearance or intervene in these proceedings.

4. The Water Referee by Order dated July ⁹ 19, 1986, under Section 37-92-303(2), C.R.S., rereferred the Application to the Water Judge for all further proceedings. 225

5. The State Engineer issued a Determination of Facts on the Application, dated July 28, 1986, which has been filed with the Court. The Division Engineer adopted the Determination of Facts as his recommendations on August 8, 1986. The Determination of Facts and the findings contained therein have been reviewed and considered by this Court in accordance with Section 37-92-305(6), C.R.S.

6. Applicants seek an adjudication of rights to nontributary ground water from the Arapahoe Formation beneath 1,410 acres of land in El Paso County which are described in Exhibit A and depicted on the map attached as Exhibit B, both of which are incorporated herein by this reference (the "Subject Lands"). Applicants are the owners of the Subject Lands and have the right to withdraw and use the waters from the Arapahoe Formation underlying those lands. The waters claimed herein may be withdrawn through the proposed wells described in Paragraph 7 below and through such additional, replacement and supplemental wells as may be necessary to withdraw all of the water in the Arapahoe Formation underlying the Subject Lands without causing material injury to any vested water right whose source of supply is the Arkansas River and any of its tributaries or any other natural stream, or any ground water tributary thereto, and the Applicants have so proven.

7. Applicants will divert the waters claimed herein from the Arapahoe Formation through Dines Wells KA-1, KA-2, KA-3, and KA-4 more particularly described as follows:

Well Name: Dines Well KA-1

- (a) In the SE 1/4 of the NW 1/4 of Section 27, Township 12 South, Range 65 West of the 6th P.M., 2500 feet from the North Section line and 2200 feet from the West Section line, in El Paso County.
- (b) Depth: 1900 feet.
- (c) Source: Nontributary Arapahoe Formation.
- (d) Pumping rate: 150 gpm.

(e) Annual quantity: 240 acre-feet.*

Well Name: Dines Well KA-2

(a) Location: In the SW 1/4 of the SW 1/4 of Section 27, Township 12 South, Range 65 West of the 6th P.M., 200 feet from the South Section line and 200 feet from the West Section line, in El Paso County.

(b) Depth: 1800 feet.

(c) Source: Nontributary Arapahoe Formation.

(d) Pumping rate: 150 gpm.

(e) Annual quantity: 240 acre-feet.*

Well Name: Dines Well KA-3

(a) Location: In the NW 1/4 of the SE 1/4 of Section 33, Township 12 South, Range 65 West of the 6th P.M., 1500 feet from the South Section line and 2100 feet from the East Section line, in El Paso County.

(b) Depth: 1700 feet.

(c) Source: Nontributary Arapahoe Formation.

(d) Pumping rate: 150 gpm.

(e) Annual quantity: 240 acre-feet.*

Well Name: Dines Well KA-4

(a) Location: In the NE 1/4 of the SW 1/4 of Section 34, Township 12 South, Range 65 West of the 6th P.M., 1400 feet from the South Section line and 2100 feet from the West Section line, in El Paso County.

(b) Depth: 1700 feet.

(c) Source: Nontributary Arapahoe Formation.

(d) Pumping rate: 150 gpm.

(e) Annual quantity: 240 acre-feet.

- * Not to exceed in total the amount available to Applicants from the Arapahoe Formation pursuant to § 37-90-137(4), C.R.S. and the provisions of this decree.

8. Pursuant to §37-90-137(4), C.R.S., five hundred seventy-five (575) acre-feet of water per year are available to Applicants from the Arapahoe Formation underlying the Subject Lands. The average thickness of saturated sand of the Arapahoe Formation underlying the Subject Lands is 240 feet but the final determination on actual saturated sand thickness will be determined when the wells are drilled, and the amount decreed herein may be subsequently adjusted in accordance with that saturated sand thickness as provided in Paragraph 29 below. The specific yield of the Arapahoe Formation is 17% in and beneath the Subject Lands. This finding is specific to the property involved and does not indicate or in any way reflect upon proper values for the subject aquifer elsewhere. All the water in the Arapahoe Formation underlying the Subject Lands remains available for withdrawal by the wells decreed herein.

9. The State Engineer in his Determination of Facts found that 581 acre-feet per year were available for appropriation through the subject wells. The State Engineer's determination is based on a finding that only 1395 acres of the Subject Lands are available for appropriation, and based on saturated sand thicknesses of 245 feet and 250 feet for different parts of the Subject Lands and a specific yield of 17% for the Arapahoe Formation. The State Engineer also found that of the total 581 acre-feet per year of water available for appropriation, 569 acre-feet was nontributary and 12 acre-feet was not nontributary. The 12 acre-feet per year the State Engineer found as not nontributary underly 37 acres of Section 32 of the Subject Lands. Applicant has shown by a preponderance of the evidence that there are no existing wells with a right to water from the Arapahoe Formation underlying the Subject Lands and that the water underlying 1410 acres is available for appropriation by Applicants. The Court also finds that the withdrawals through Applicants' proposed wells of the water claimed herein including the amount of water underlying the 37 acres in Section 32 is nontributary. The proposed wells will not, at their location and withdrawing the amounts decreed herein, within one hundred years deplete the flow of any natural stream at a rate greater than one-tenth of one percent of the annual rate of withdrawal. Applicants' engineer ~~has testified~~ that 575 acre-feet per year is available for appropriation calculated with a saturated sand thickness of 240 feet for the

Arapahoe Formation. Subject to the final determination of saturated sand thickness based on the information derived from the drilling of the wells, Applicants will use 240 feet for the saturated sand thickness of the Arapahoe Formation beneath the Applicants' property.

10. The source of water for the proposed wells is nontributary as defined in Section 37-90-103 (10.5), C.R.S. The proposed withdrawals through Dines Wells KA-1, KA-2, KA-3, and KA-4 in the amount of 575 acre-feet per year, or in any lesser or greater amount determined under Paragraph 29, will not, within one hundred years, deplete the flow of any natural stream or its alluvium or any ground water tributary thereto at an annual rate greater than one-tenth of 1% of the annual rate of withdrawal.

11. The waters of the Arapahoe Formation that are the subject of the appropriation claimed herein will be, and Applicants intend that they be used, and Applicants shall have the right of succession of uses, for municipal, domestic, commercial, fire protection, industrial, residential, recreation, irrigation, exchange, replacement of depletions, augmentation, livestock and agricultural uses. The water will be produced for immediate application to beneficial use and for storage and subsequent application to beneficial use. Subject only to the provisions of Paragraph 31, Applicants shall have the right to make any reuse, successive use or disposition of the developed water claimed herein until totally consumed free of any limitations, restrictions, or requirements as to the place of use, amount of discharge or location of discharge after such reuse, successive use or disposition in accord with Section 37-82-106, C.R.S.

12. All of the requirements of C.R.S. § 37-90-137(4), in effect on this date have been complied with, and the issuance of permits for the subject wells is justified and those permits will be issued as described in Paragraph 34 below.

13. Applicants will relinquish the right to consume after use, reuse, and successive use 2% of the amount of ground water withdrawn through Dines Wells KA-1, KA-2, KA-3 and KA-4 and any additional, supplemental, or replacement, wells without regard to dominion or control of the ground water so relinquished.

14. Applicants seek a decree designating all of the wells described in Paragraph 7 above as original and alternate points of diversion for each other permitting the withdrawal of up to the full cumulative amount by flow rate and volume of water which may be lawfully withdrawn from any one or more of those wells. The Court finds that no material injury will result to the owners or persons entitled to use water under any vested

water right or decreed conditional water right by the granting of this request, and it is hereby granted.

15. Applicants may withdraw more water than the amounts set forth in Paragraph 8 so long as the sum of the withdrawals from all wells decreed herein (as that sum may subsequently be adjusted pursuant to Paragraph 29 hereof) does not exceed the product of the number of years since the date of this decree, times the annual rate of one percent (1%) of the total amount of unappropriated water recoverable from the Arapahoe Formation.

16. Applicants have requested that the Court determine that Applicants have the right to withdraw all of the unappropriated water from the Arapahoe Formation lying below their land and to increase their annual appropriations based upon the local aquifer characteristics established through information obtained from the drilling of the wells upon notice to all parties and approval by the Court, without amending the Application or republishing. The Court finds that there has been full and adequate notice of these claims and Applicants will be entitled to an adjustment under the provisions of Paragraph 29 below on the amount of water to which the wells are entitled.

17. Applicants may construct any well within 200 feet of the described locations without amending the Application or reopening this decree.

18. With respect to the permits to be issued by the State Engineer's office for construction of the wells described in Paragraph 7 herein, the provisions of Paragraph 34 below are and have been justified and shall apply.

19. As of March 3, 1986, Applicants have intended to claim the waters sought in the Application and have so demonstrated by open and physical acts on the ground and by the completion of an engineering study and hydrogeological investigation on the water available for appropriation in the Arapahoe Formation. Applicants have demonstrated and manifested an intent to appropriate the waters claimed herein by giving sufficient notice thereof, all in accordance with law. The evidence presented shows that the Applicants intend to appropriate the waters claimed herein, that such intent to appropriate has been adequately demonstrated, and that Applicants are entitled to a decree for the water rights herein decreed.

20. There is unappropriated water available for withdrawal by the structures decreed herein and the vested water rights of others will not be materially injured by the appropriations as decreed. Only that quantity of water underlying the Subject Lands has been considered to be

unappropriated; the minimum useful life of the Arapahoe Formation is at least one hundred (100) years, assuming no substantial artificial recharge within one hundred (100) years; and no material injury to vested water rights will result from the issuance of or exercise of the permits for the subject wells.

CONCLUSIONS OF LAW

21. The Court has jurisdiction to determine Applicants' rights to nontributary ground water pursuant to Sections 37-90-137(6), 37-92-203(1), and 37-92-302 through 305, C.R.S. (Supp. 1985). The procedures and requirements of these statutes have been complied with, full and adequate notice has been given, and no additional notice is required.

22. The Court concludes as a matter of law that the Application herein is one contemplated by law. The Application for a decree confirming Applicants' right to divert and use ground water from the Arapahoe Formation beneath the Subject Lands, pursuant to C.R.S. § 37-90-137(4), should be granted, subject to the provisions of this decree. The rights confirmed by this decree are vested property rights. The amount of water confirmed in this decree is that quantity of water underlying the Subject Lands and the annual withdrawals are based on an aquifer life of one hundred years.

23. The Court concludes that the rights to ground water determined herein are not conditional water rights and subsequent showings or findings of reasonable diligence under Section 37-92-301(4), C.R.S., are inapplicable and need not be made. Accordingly, each of the water rights adjudicated herein is a final vested property right.

24. Applicants are entitled as a matter of law to use, reuse, and successively use to extinction and dispose of all nontributary ground water decreed herein pursuant to Section 37-82-106, C.R.S. (Supp. 1985) subject only to a 2% relinquishment of Applicants' right to total consumption. Failure to use, reuse or recapture such water, including return flows, shall not be deemed a forfeiture or abandonment of the right to such use, reuse or recapture.

25. The Court shall retain jurisdiction over this matter to make adjustments to the amount of water available for withdrawal annually to conform to the actual aquifer characteristics encountered upon the drilling of the wells. This retained jurisdiction may be invoked only by the parties under Paragraph 36.

JUDGMENT AND DECREE

26. The Findings of Fact and Conclusions of Law set forth in Paragraphs 1-25, above are incorporated herein by this reference.

27. The Application for determination of water rights for the subject wells is granted subject to the following limitations.

28. A right to five hundred seventy-five (575) acre-feet of nontributary ground water per year is decreed and confirmed in Applicants pursuant to § 37-90-137(4), C.R.S., for Dines Wells KA-1, KA-2, KA-3, and KA-4, from the Arapahoe Formation for municipal, domestic, commercial, fire protection, industrial, residential, recreation, irrigation, exchange, replacement of depletions, augmentation, livestock and agricultural uses. Applicants shall have the right to recapture, reuse, and dispose of the water developed by the subject wells. Applicants shall have the right to withdraw water for immediate application to beneficial use and for storage and subsequent application to beneficial use and shall have the right to make any reuse, successive use or disposition of the developed water claimed herein to extinction free of any limitations, restrictions, or requirements as to the place of use, amount of discharge or location of discharge after such reuse, successive use or disposition in accord with Section 37-82-106, C.R.S. subject only to the provisions of Paragraph 31 below. The water may be withdrawn through the wells described in Paragraph 7 above and through such additional wells as may be required in order to maintain the annual appropriation as determined herein. The proposed withdrawals through Dines Wells KA-1, KA-2, KA-3, and KA-4 and any additional, supplemental, or replacement wells in the amount of 575 acre-feet per year, or in any additional amounts of water from the Arapahoe Formation underlying the Subject Lands, will not, within one hundred years, deplete the flow of any natural stream or its alluvium or any ground water tributary thereto at an annual rate greater than one-tenth of 1% of the annual rate of withdrawal, and those waters are nontributary to any natural surface stream, its alluvium, and any ground water tributary thereto, and the proposed withdrawals will not result in material injury to vested water rights.

29. The total amount of water to which Applicants are entitled and which is available to Applicants from the Arapahoe Formation beneath the Subject Lands shall be 575 acre-feet per year or the lesser or greater amount of water each such well is entitled to as subsequently determined from the saturated sand thickness of the Arapahoe Formation determined from the geophysical data obtained from the construction of the wells. Geophysical logs shall be taken in accordance with the applicable

rules promulgated by the State Engineer. In making the determination of the final amount of water to which the subject wells are entitled, the following criteria shall apply:

(a) Saturated sand thickness shall be defined as the cumulative thickness of saturated materials as shown on the geophysical logs for each well applying standard accepted geophysical log interpretation methodology;

(b) The specific yield for the Arapahoe Formation shall be 17%;

(c) The water in the Arapahoe Formation underlying the 1410 acres of the Subject Lands shall be considered available for appropriation by the wells decreed herein.

After the completion of the wells subject to this decree, Applicants shall submit the geophysical logs and any other geophysical information obtained from the drilling of the wells to the State Engineer and to the other parties in this action together with a statement from Applicants on the final actual saturated sand thickness and final annual appropriation for each well as determined by Applicants. Within 60 days from the date on which Applicants mail copies of the geophysical logs and statement to the parties herein, any party may petition this Court to invoke the Court's retained jurisdiction under Paragraph 36 of this decree to reconsider the saturated sand thickness of the Arapahoe Formation underlying the Subject Lands for the purpose of adjusting the total entitlement of water to the wells decreed herein. Those proceedings shall be limited exclusively to the issue of saturated sand thickness. If the Court's retained jurisdiction is not invoked within the time prescribed in this Paragraph, the respective amounts set forth in Applicants' statement as the final annual entitlement to each well shall be final, which amount shall be confirmed as final by order of the Court upon Applicants' motion to the Court setting forth facts showing compliance with this Paragraph.

30. The issuance by the Colorado Division of Water Resources pursuant to Colorado Revised Statutes, Section 37-90-137(4) of permits to construct the subject wells is justified and the Division of Water Resources is directed to issue the permits in accordance with Paragraph 34 below. Each of the requirements of the statute has been complied with. Unappropriated waters are available for appropriation from the Arapahoe Formation beneath the Subject Lands and the proposed withdrawals will not result in material injury to other vested water rights.

31. Applicants shall relinquish the right to consume, after use, reuse, and successive use 2% of the water withdrawn through Dines Wells KA-1, KA-2, KA-3 and KA-4 and any additional, supplemental, or replacement wells without regard to dominion or control of the ground water so relinquished.

32. All of the wells described in Paragraph 7 may be used as original and alternate points of diversion for each other permitting the withdrawal by flow rate and volume of up to the full cumulative amount of water which may be lawfully withdrawn from all of those wells from any one or more of those wells. The Court finds that no material injury will result to the owners or persons entitled to use water under any vested water right or decreed conditional water right by the granting of this request, and it is hereby granted.

33. Applicants may withdraw more water than the final annual appropriation for each well so long as the sum of the withdrawals from all wells decreed herein (as that sum may subsequently be adjusted pursuant to Paragraph 29 hereof) does not exceed the product of the number of years since the date of issuance of this decree, times the annual rate of one percent (1%) of the total amount of unappropriated water recoverable from the Arapahoe Formation.

34. With respect to the permits to be issued by the State Engineer's office for construction of the wells described in Paragraph 7 herein, the following provisions shall apply.

(a) The State Engineer shall consider the rights granted herein as valid and shall consider the water sought by Applicants as taken and appropriated by Applicants.

(b) When Applicants are prepared to drill a well described in this decree, Applicants shall apply to the State Engineer for a well permit and that permit shall be issued within 60 days under terms and conditions no less stringent than those set forth in this decree with the conditions for equipping and constructing the well as are specified in Paragraph 35 herein. In the event that a well permit expires prior to the construction of the well and the application of water to beneficial use, Applicants may apply for a new well permit and the State Engineer shall within 60 days issue a new well permit with the same terms and conditions as the permit that expired.

(c) Applicants shall submit well permit applications to the State Engineer's office for any replacement, supplemental or additional wells.

(d) Any well permitted pursuant to this decree which is drilled within 200 feet of the decreed location shall be deemed to have been drilled at the decreed well location and shall not require application for a new or amended well permit.

(e) In determining whether good cause exists for granting a request by Applicants to extend well permits for nontributary wells for one or more additional one-year periods pursuant to Section 37-90-137(3)(a)(II), C.R.S. (1985 Supp.), the State Engineer shall recognize that each well decreed herein, and such additional wells as are required from time to time to fully recover the annual appropriation herein, are part of a single integrated water supply system to be constructed over a phased period of time. So long as Applicants still desire to use the groundwater the well permits shall be extended.

(f) Prior to constructing any additional wells, Applicants shall submit well permit applications to the State Engineer. In considering such permit applications, the State Engineer shall be governed by Section 37-90-137(10), C.R.S. (1985 Supp.) and the provisions of this decree. Any such permitting action may be reviewed by this Court pursuant to Section 37-92-305(6), C.R.S. (1985 Supp.).

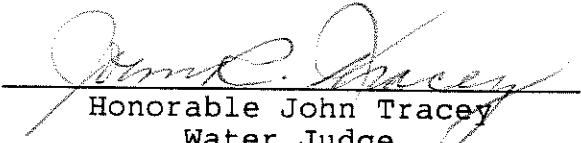
(g) For the purpose of well permit applications, Applicants need not submit separate proof, apart from the terms of this decree, of matters which have been determined herein.

35. Applicants shall geophysically log the entire bore hole of each well prior to the installation of casing. Such logs shall be taken in accordance with the applicable rules promulgated by the State Engineer. In constructing and maintaining any well which will withdraw water from the Arapahoe Formation under this decree, the Applicants shall seal off and encase the well with an impervious lining at all levels, except the level of the Arapahoe Formation, to prevent withdrawal of and mixing of groundwater in other aquifers and a totalizing flow meter shall be installed on each well. After construction the Applicants shall attach an identification tag to the well specifying the name of the well, the permit number and the aquifer from which the water is withdrawn. Applicants shall maintain records of the amounts pumped from each well on a monthly basis and such records shall be provided to the Division Engineer or the State Engineer on request.

36. This Court retains jurisdiction in this case for the reconsideration of the final amounts of water appropriated by the proposed wells in accord with Paragraph 29 above. The Court's retained jurisdiction may be invoked only by the Applicants and JVRC, Inc. The Court's retained jurisdiction may be invoked by written notice to the Court requesting a hearing. Copies of that notice will be served on the parties herein at their latest address of record in this case.

Dated this 29 day of Oct., 1986.

BY THE COURT



Honorable John Tracey
Water Judge
Water Division No. 2
State of Colorado

APPROVED AS TO FORM AND SUBSTANCE:


SHERMAN & HOWARD

VRANESH & RAISCH

By:


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By:


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Attorneys for Applicants,
The First Interstate Bank of
Denver N.A., Carla W. Lewis,
and Samuel S. Sherman as
Cotrustees under the Life
Insurance Trust of Thomas M.
Dines.

c: Sherman and Howard (Salazar)
Vranesh & Raisch (Shimmin)
Division Engineer
State Engineer

Filed in the office of the
Clerk, District Court Water
Division No. 2, State of
Colorado

OCT 29 1986

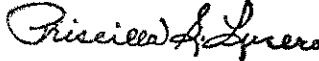

Clerk

EXHIBIT A

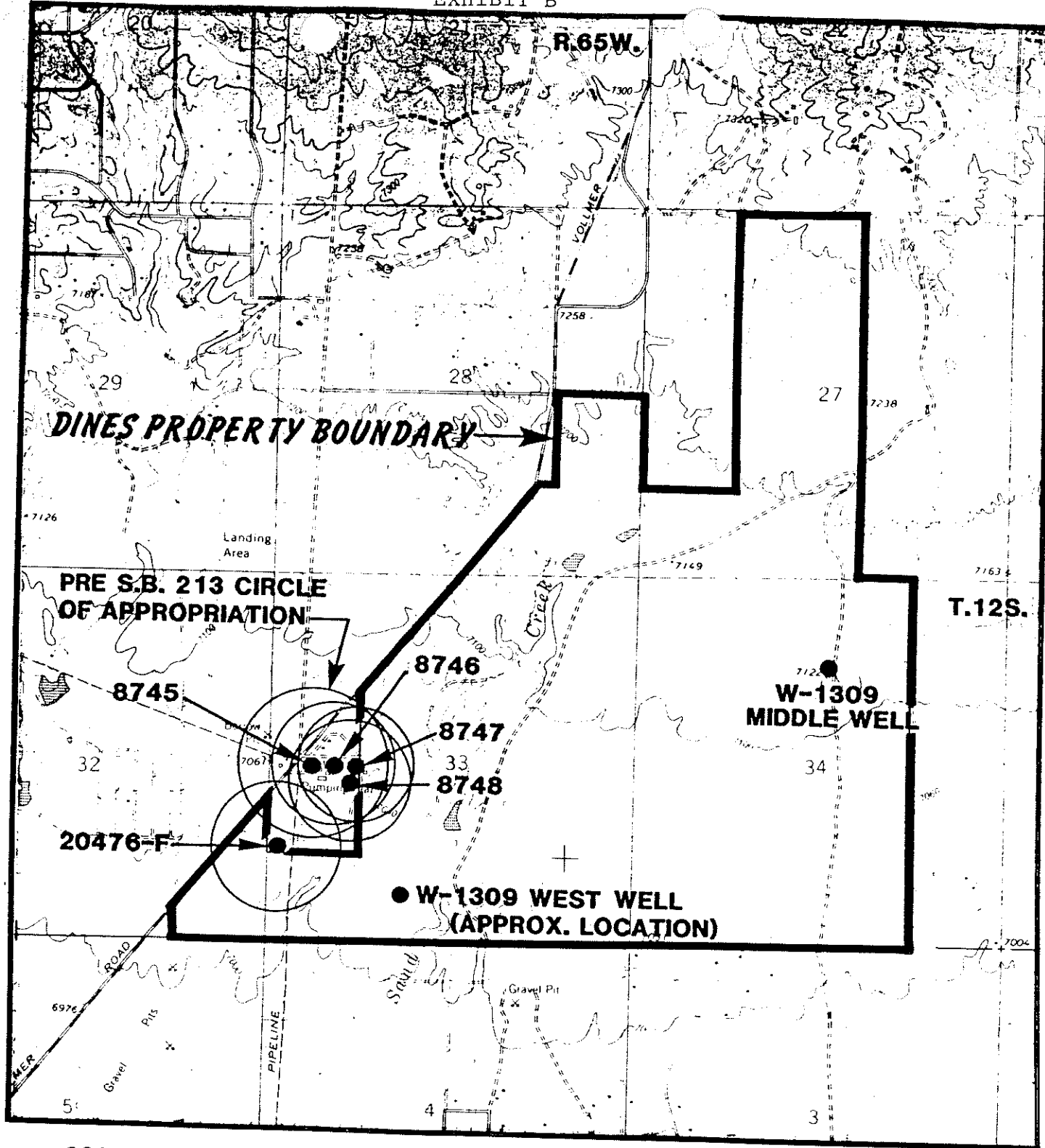
The Subject Lands consist of the following:

The W1/2 W1/2 E1/2 and the E1/2 W1/2 and the SW1/4 SW1/4 of Section 27; the E1/2 SE1/4 and that portion of the SW1/4 SE1/4 lying South and East of the County Road across said premises, both in Section 28; that portion of the SE1/4 SE1/4 of Section 32 lying South and East of said County Road, and that portion of the NE1/4 SE1/4 of said Section 32, lying South and East of said County Road; the E1/2 and the E1/2 SW1/4 and the SW1/4 SW1/4 of Section 33, and all that part of the NW1/4 of said Section 33 lying South and East of the said County Road across said premises, except that portion of the SW1/4 NW1/4 of said Section 33 lying South and East of said County Road containing approximately 10 acres deeded to Colorado Interstate Gas Company by Warranty Deed recorded in Book 1173 at Page 359 of the El Paso County Records; and the W1/2 E1/2 and the W1/2 of Section 34, all in Township 12 South, Range 65 West of the 6th P.M., located in El Paso County, Colorado.

Filed in the office of the
Clerk, District Court Water
Division No. 2, State of
Colorado

OCT 29 1986

Rosemary A. Lyons
Clerk



SCALE 1:24000

LOCATION MAP

FIGURE 1

Filed in the office of the
Clerk, District Court Water
Division No. 2, State of
Colorado

OCT 29 1986

Priscilla S. Lyners
Clerk

DISTRICT COURT, WATER DIVISION NO. 2, STATE OF COLORADO

OCT 29 1986

Case No. 86-CW-19

Riseice/Sherman

FINDINGS OF FACT, CONCLUSIONS OF LAW, JUDGMENT AND DECREE

Clerk

CONCERNING THE APPLICATION FOR NONTRIBUTARY GROUND WATER RIGHTS OF THE FIRST INTERSTATE BANK OF DENVER N.A., CARLA W. LEWIS, AND SAMUEL S. SHERMAN AS COTRUSTEES UNDER THE LIFE INSURANCE TRUST OF THOMAS M. DINES FROM THE LARAMIE-FOX HILLS AQUIFER, EL PASO COUNTY.

THIS MATTER, having come on ~~for hearing before the~~ *get* Court this 29 day of Oct., 1986 upon the application of The First Interstate Bank of Denver N.A., Carla W. Lewis, and Samuel S. Sherman as Cotrustees under the Life Insurance Trust of Thomas M. Dines ("Applicants") and the Court having considered the pleadings filed and the evidence presented, and being fully advised in the premises, hereby enters the following Findings of Fact, Conclusions of Law, and Judgment and Decree:

FINDINGS OF FACT

1. The Applicants are The First Interstate Bank of Denver N.A., Carla W. Lewis, and Samuel S. Sherman as Cotrustees under the Life Insurance Trust of Thomas M. Dines whose address is First Interstate Bank of Denver, 633 Seventeenth Street, Denver, Colorado 80202, Attn: Jack Alexander. Applicants filed the application in this case styled Application For Nontributary Ground Water From The Laramie-Fox Hills Aquifer (the "Application") on March 28, 1986, seeking an adjudication of nontributary ground water rights from the Laramie-Fox Hills Aquifer underlying lands owned by Applicants in El Paso County.

2. Timely and adequate notice of the Application was published as required by statute, and the Court has jurisdiction over the subject matter of this proceeding and over all parties affected hereby, whether they have appeared or not. None of the lands or water rights involved in this case are within the boundaries of a designated groundwater basin.

3. A timely statement of opposition was filed by JVRC, Inc. No other statements of opposition were filed within the time provided by law nor did any other parties enter their appearance or intervene in these proceedings.

4. The Water Referee by Order dated July 19⁹, 1986, under Section 37-92-303(2), C.R.S., rereferred the Application to the Water Judge for all further proceedings.

5. The State Engineer issued a Determination of Facts on the Application, dated July 28, 1986, which has been filed with the Court. The Division Engineer adopted the Determination of Facts as his recommendations on August 8, 1986. The Determination of Facts and the findings contained therein have been reviewed and considered by this Court in accordance with Section 37-92-305(6), C.R.S.

6. Applicants seek an adjudication of rights to nontributary ground water from the Laramie-Fox Hills Aquifer beneath 1,410 acres of land in El Paso County which are described in Exhibit A and depicted on the map attached as Exhibit B, both of which are incorporated herein by this reference (the "Subject Lands"). Applicants are the owners of the Subject Lands and have the right to withdraw and use the waters from the Laramie-Fox Hills Aquifer underlying those lands. The waters claimed herein may be withdrawn through the proposed wells described in Paragraph 7 below and through such additional, replacement and supplemental wells as may be necessary to withdraw all of the water in the Laramie-Fox Hills Aquifer underlying the Subject Lands without causing material injury to any vested water right whose source of supply is the Arkansas River and any of its tributaries or any other natural stream, or any ground water tributary thereto, and the Applicants have so proven.

7. Applicants will divert the waters claimed herein from the Laramie-Fox Hills Aquifer through Dines Wells KLF-1, KLF-2, KLF-3, and KLF-4 more particularly described as follows:

Well Name: Dines Well KLF-1

- (a) In the SE 1/4 of the NW 1/4 of Section 27, Township 12 South, Range 65 West of the 6th P.M., 2500 feet from the North Section line and 2300 feet from the West Section line, in El Paso County.
- (b) Depth: 2350 feet.
- (c) Source: Nontributary Laramie-Fox Hills Aquifer.
- (d) Pumping rate: 150 gpm.

(e) Annual quantity: 240 acre-feet.*

Well Name: Dines Well KLF-2

(a) Location: In the SW 1/4 of the SW 1/4 of Section 27, Township 12 South, Range 65 West of the 6th P.M., 100 feet from the South Section line and 100 feet from the West Section line, in El Paso County.

(b) Depth: 2250 feet.

(c) Source: Nontributary Laramie-Fox Hills Aquifer.

(d) Pumping rate: 150 gpm.

(e) Annual quantity: 240 acre-feet.*

Well Name: Dines Well KLF-3

(a) Location: In the NW 1/4 of the SE 1/4 of Section 33, Township 12 South, Range 65 West of the 6th P.M., 1400 feet from the South Section line and 2200 feet from the East Section line, in El Paso County.

(b) Depth: 2150 feet.

(c) Source: Nontributary Laramie-Fox Hills Aquifer.

(d) Pumping rate: 150 gpm.

(e) Annual quantity: 240 acre-feet.*

Well Name: Dines Well KLF-4

(a) Location: In the NE 1/4 of the SW 1/4 of Section 34, Township 12 South, Range 65 West of the 6th P.M., 1400 feet from the South Section line and 2200 feet from the West Section line, in El Paso County.

(b) Depth: 2150 feet.

(c) Source: Nontributary Laramie-Fox Hills Aquifer.

(d) Pumping rate: 150 gpm.

(e) Annual quantity: 240 acre-feet.

- * Not to exceed in total the amount available to Applicants from the Laramie-Fox Aquifer pursuant to § 37-90-137(4), C.R.S. and the provisions of this decree.

8. Pursuant to §37-90-137(4), C.R.S., five hundred thirty-nine (539) acre-feet of water per year are available to Applicants from the Laramie-Fox Hills Aquifer underlying the Subject Lands. The average thickness of saturated sand of the Laramie-Fox Hills Aquifer underlying the Subject Lands is 255 feet but the final determination on actual saturated sand thickness will be determined when the wells are drilled, and the amount decreed herein may be subsequently adjusted in accordance with that saturated sand thickness as provided in Paragraph 29 below. The specific yield of the Laramie-Fox Hills Aquifer is 15% in and beneath the Subject Lands. This finding is specific to the property involved and does not indicate or in any way reflect upon proper values for the subject aquifer elsewhere. All the water in the Laramie-Fox Hills Aquifer underlying the Subject Lands remains available for withdrawal by the wells decreed herein.

9. The State Engineer in his Determination of Facts found that 423 acre-feet per year were available for appropriation through the subject wells based on a specific yield of 15% and a saturated sand thickness of 200 feet for the Laramie-Fox Hill Aquifer beneath the Subject Lands. Applicants' engineers ~~has testified~~ that 539 acre-feet per year is available for appropriation calculated with a saturated sand thickness of 255 feet for the Laramie-Fox Hills Aquifer derived from a review of wells in the vicinity of the Subject Lands. Subject to the final determination of saturated sand thickness based on the information derived from the drilling of the wells, Applicants have shown by a preponderance of the evidence that the saturated sand thickness for the Laramie-Fox Hills Aquifer is 255 feet beneath the Applicants' property.

10. The source of water for the proposed wells is nontributary as defined in Section 37-90-103 (10.5), C.R.S. The proposed withdrawals through Dines Wells KLF-1, KLF-2, KLF-3, and KLF-4 in the amount of 539 acre-feet per year, or in any lesser or greater amount determined under Paragraph 29, will not, within one hundred years, deplete the flow of any natural stream or its alluvium or any ground water tributary thereto at an annual rate greater than one-tenth of 1% of the annual rate of withdrawal.

11. The waters of the Laramie-Fox Hills Aquifer that are the subject of the appropriation claimed herein will be, and Applicants intend that they be used, and Applicants shall have the right of succession of uses, for municipal, domestic, commercial, fire protection, industrial, residential, recreation, irrigation, exchange, replacement of depletions, augmentation, livestock and agricultural uses. The water will be produced for immediate application to beneficial use and for storage and subsequent application to beneficial use. Subject only to the provisions of Paragraph 31, Applicants shall have the right to make any reuse, successive use or disposition of the developed water claimed herein until totally consumed free of any limitations, restrictions, or requirements as to the place of use, amount of discharge or location of discharge after such reuse, successive use or disposition in accord with Section 37-82-106, C.R.S.

12. All of the requirements of C.R.S. § 37-90-137(4), in effect on this date have been complied with, and the issuance of permits for the subject wells is justified and those permits will be issued as described in Paragraph 34 below.

13. Applicants will relinquish the right to consume after use, reuse, and successive use 2% of the amount of ground water withdrawn through Dines Wells KLF-1, KLF-2, KLF-3 and KLF-4 and any additional, supplemental, or replacement, wells without regard to dominion or control of the ground water so relinquished.

14. Applicants seek a decree designating all of the wells described in Paragraph 7 above as original and alternate points of diversion for each other permitting the withdrawal of up to the full cumulative amount by flow rate and volume of water which may be lawfully withdrawn from any one or more of those wells. The Court finds that no material injury will result to the owners or persons entitled to use water under any vested water right or decreed conditional water right by the granting of this request, and it is hereby granted.

15. Applicants may withdraw more water than the amounts set forth in Paragraph 8 so long as the sum of the withdrawals from all wells decreed herein (as that sum may subsequently be adjusted pursuant to Paragraph 29 hereof) does not exceed the product of the number of years since the date of this decree, times the annual rate of one percent (1%) of the total amount of unappropriated water recoverable from the Laramie-Fox Hills Aquifer.

16. Applicants have requested that the Court determine that Applicants have the right to withdraw all of the unappropriated water from the Larimie-Fox Hills Aquifer lying

below their land and to increase their annual appropriations based upon the local aquifer characteristics established through information obtained from the drilling of the wells upon notice to all parties and approval by the Court, without amending the Application or republishing. The Court finds that there has been full and adequate notice of these claims and Applicants will be entitled to an adjustment under the provisions of Paragraph 29 below on the amount of water to which the wells are entitled.

17. Applicants may construct any well within 200 feet of the described locations without amending the Application or reopening this decree.

18. With respect to the permits to be issued by the State Engineer's office for construction of the wells described in Paragraph 7 herein, the provisions of Paragraph 34 below are and have been justified and shall apply.

19. As of March 3, 1986, Applicants have intended to claim the waters sought in the Application and have so demonstrated by open and physical acts on the ground and by the completion of an engineering study and hydrogeological investigation on the water available for appropriation in the Laramie-Fox Hills Aquifer. Applicants have demonstrated and manifested an intent to appropriate the waters claimed herein by giving sufficient notice thereof, all in accordance with law. The evidence presented shows that the Applicants intend to appropriate the waters claimed herein, that such intent to appropriate has been adequately demonstrated, and that Applicants are entitled to a decree for the water rights herein decreed.

20. There is unappropriated water available for withdrawal by the structures decreed herein and the vested water rights of others will not be materially injured by the appropriations as decreed. Only that quantity of water underlying the Subject Lands has been considered to be unappropriated; the minimum useful life of the Laramie-Fox Hills Aquifer is at least one hundred (100) years, assuming no substantial artificial recharge within one hundred (100) years; and no material injury to vested water rights will result from the issuance of or exercise of the permits for the subject wells.

CONCLUSIONS OF LAW

21. The Court has jurisdiction to determine Applicants' rights to nontributary ground water pursuant to Sections 37-90-137(6), 37-92-203(1), and 37-92-302 through 305, C.R.S. (Supp. 1985). The procedures and requirements of these statutes have been complied with, full and adequate notice has been given, and no additional notice is required.

22. The Court concludes as a matter of law that the Application herein is one contemplated by law. The Application for a decree confirming Applicants' right to divert and use ground water from the Laramie-Fox Hills Aquifer beneath the Subject Lands, pursuant to C.R.S. § 37-90-137(4), should be granted, subject to the provisions of this decree. The rights confirmed by this decree are vested property rights. The amount of water confirmed in this decree is that quantity of water underlying the Subject Lands and the annual withdrawals are based on an aquifer life of one hundred years.

23. The Court concludes that the rights to ground water determined herein are not conditional water rights and subsequent showings or findings of reasonable diligence under Section 37-92-301(4), C.R.S., are inapplicable and need not be made. Accordingly, each of the water rights adjudicated herein is a final vested property right.

24. Applicants are entitled as a matter of law to use, reuse, and successively use to extinction and dispose of all nontributary ground water decreed herein pursuant to Section 37-82-106, C.R.S. (Supp. 1985) subject only to a 2% relinquishment of Applicants' right to total consumption. Failure to use, reuse or recapture such water, including return flows, shall not be deemed a forfeiture or abandonment of the right to such use, reuse or recapture.

25. The Court shall retain jurisdiction over this matter to make adjustments to the amount of water available for withdrawal annually to conform to the actual aquifer characteristics encountered upon the drilling of the wells. This retained jurisdiction may be invoked only by the parties under Paragraph 36.

JUDGMENT AND DECREE

26. The Findings of Fact and Conclusions of Law set forth in Paragraphs 1-25, above are incorporated herein by this reference.

27. The Application for determination of water rights for the subject wells is granted subject to the following limitations.

28. A right to five hundred thirty-nine (539) acre-feet of nontributary ground water per year is decreed and confirmed in Applicants pursuant to § 37-90-137(4), C.R.S., for Dines Wells KLF-1, KLF-2, KLF-3, and KLF-4, from the Laramie-Fox Hills Aquifer for municipal, domestic, commercial, fire protection, industrial, residential, recreation, irrigation,

exchange, replacement of depletions, augmentation, livestock and agricultural uses. Applicants shall have the right to recapture, reuse, and dispose of the water developed by the subject wells. Applicants shall have the right to withdraw water for immediate application to beneficial use and for storage and subsequent application to beneficial use and shall have the right to make any reuse, successive use or disposition of the developed water claimed herein to extinction free of any limitations, restrictions, or requirements as to the place of use, amount of discharge or location of discharge after such reuse, successive use or disposition in accord with Section 37-82-106, C.R.S. subject only to the provisions of Paragraph 31 below. The water may be withdrawn through the wells described in Paragraph 7 above and through such additional wells as may be required in order to maintain the annual appropriation as determined herein. The proposed withdrawals through Dines Wells KLF-1, KLF-2, KLF-3, and KLF-4 and any additional, supplemental, or replacement wells in the amount of 539 acre-feet per year, or in any additional amounts of water from the Laramie-Fox Hills Aquifer underlying the Subject Lands, will not, within one hundred years, deplete the flow of any natural stream or its alluvium or any ground water tributary thereto at an annual rate greater than one-tenth of 1% of the annual rate of withdrawal, and is nontributary to any natural surface stream, its alluvium, and any ground water tributary thereto, and the proposed withdrawals will not result in material injury to vested water rights.

29. The total amount of water to which Applicants are entitled and which is available to Applicants from the Laramie-Fox Hills Aquifer beneath the Subject Lands shall be 539 acre-feet per year or the lesser or greater amount of water each such well is entitled to as subsequently determined from the saturated sand thickness of the Laramie-Fox Hills Aquifer determined from the geophysical data obtained from the construction of the wells. Geophysical logs shall be taken in accordance with the applicable rules promulgated by the State Engineer. In making the determination of the final amount of water to which the subject wells are entitled, the following criteria shall apply:

(a) Saturated sand thickness shall be defined as the cumulative thickness of saturated materials as shown on the geophysical logs for each well applying standard accepted geophysical log interpretation methodology;

(b) The specific yield for the Laramie-Fox Hills Aquifer shall be 15%;

(c) The water in the Laramie-Fox Hills Aquifer underlying the 1410 acres of the Subject Lands shall be considered available for appropriation by the wells decreed herein.

After the completion of the wells subject to this decree, Applicants shall submit the geophysical logs and any other geophysical information obtained from the drilling of the wells to the State Engineer and to the other parties in this action together with a statement from Applicants on the final actual saturated sand thickness and final annual appropriation for each well as determined by Applicants. Within 60 days from the date on which Applicants mail copies of the geophysical logs and statement to the parties herein, any party may petition this Court to invoke the Court's retained jurisdiction under Paragraph 36 of this decree to reconsider the saturated sand thickness of the Laramie-Fox Hills Aquifer underlying the Subject Lands for the purpose of adjusting the total entitlement of water to the wells decreed herein. Those proceedings shall be limited exclusively to the issue of saturated sand thickness. If the Court's retained jurisdiction is not invoked within the time prescribed in this Paragraph, the respective amounts set forth in Applicants' statement as the final annual entitlement to each well shall be final, which amount shall be confirmed as final by order of the Court upon Applicants' motion to the Court setting forth facts showing compliance with this Paragraph.

30. The issuance by the Colorado Division of Water Resources pursuant to Colorado Revised Statutes, Section 37-90-137(4) of permits to construct the subject wells is justified and the Division of Water Resources is directed to issue the permits in accordance with Paragraph 34 below. Each of the requirements of the statute has been complied with. Unappropriated waters are available for appropriation from the Laramie-Fox Hills Aquifer beneath the Subject Lands and the proposed withdrawals will not result in material injury to other vested water rights.

31. Applicants shall relinquish the right to consume, after use, reuse, and successive use 2% of the water withdrawn through Dines Wells KLF-1, KLF-2, KLF-3 and KLF-4 and any additional, supplemental, or replacement wells without regard to dominion or control of the ground water so relinquished.

32. All of the wells described in Paragraph 7 may be used as original and alternate points of diversion for each other permitting the withdrawal by flow rate and volume of up to the full cumulative amount of water which may be lawfully withdrawn from all of those wells from any one or more of those wells. The Court finds that no material injury will result to the owners or persons entitled to use water under any vested water right or

decreed conditional water right by the granting of this request, and it is hereby granted.

33. Applicants may withdraw more water than the final annual appropriation for each well so long as the sum of the withdrawals from all wells decreed herein (as that sum may subsequently be adjusted pursuant to Paragraph 29 hereof) does not exceed the product of the number of years since the date of issuance of this decree, times the annual rate of one percent (1%) of the total amount of unappropriated water recoverable from the Laramie-Fox Hills Aquifer.

34. With respect to the permits to be issued by the State Engineer's office for construction of the wells described in Paragraph 7 herein, the following provisions shall apply.

(a) The State Engineer shall consider the rights granted herein as valid and shall consider the water sought by Applicants as taken and appropriated by Applicants.

(b) When Applicants are prepared to drill a well described in this decree, Applicants shall apply to the State Engineer for a well permit and that permit shall be issued within 60 days under terms and conditions no less stringent than those set forth in this decree with the conditions for equipping and constructing the well as are specified in Paragraph 35 herein. In the event that a well permit expires prior to the construction of the well and the application of water to beneficial use, Applicants may apply for a new well permit and the State Engineer shall within 60 days issue a new well permit with the same terms and conditions as the permit that expired.

(c) Applicants shall submit well permit applications to the State Engineer's office for any replacement, supplemental or additional wells.

(d) Any well permitted pursuant to this decree which is drilled within 200 feet of the decreed location shall be deemed to have been drilled at the decreed well location and shall not require application for a new or amended well permit.

(e) In determining whether good cause exists for granting a request by Applicants to extend well permits for nontributary wells for one or more additional one-year periods pursuant to Section 37-90-137(3)(a)(II), C.R.S. (1985 Supp.), the State Engineer shall recognize that each well decreed herein, and such additional

wells as are required from time to time to fully recover the annual appropriation herein, are part of a single integrated water supply system to be constructed over a phased period of time. So long as Applicants still desire to use the groundwater the well permits shall be extended.

(f) Prior to constructing any additional wells, Applicants shall submit well permit applications to the State Engineer. In considering such permit applications, the State Engineer shall be governed by Section 37-90-137(10), C.R.S. (1985 Supp.) and the provisions of this decree. Any such permitting action may be reviewed by this Court pursuant to Section 37-92-305(6), C.R.S. (1985 Supp.).

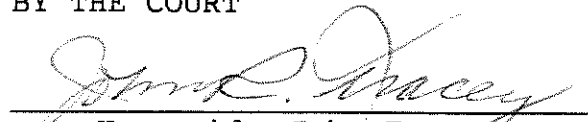
(g) For the purpose of well permit applications, Applicants need not submit separate proof, apart from the terms of this decree, of matters which have been determined herein.

35. Applicants shall geophysically log the entire bore hole of each well prior to the installation of casing. Such logs shall be taken in accordance with the applicable rules promulgated by the State Engineer. In constructing and maintaining any well which will withdraw water from the Laramie-Fox Hills Aquifer under this decree, the Applicants shall seal off and encase the well with an impervious lining at all levels, except the level of the Laramie-Fox Hills Aquifer, to prevent withdrawal of and mixing of groundwater in other aquifers and a totalizing flow meter shall be installed on each well. After construction the Applicants shall attach an identification tag to the well specifying the name of the well, the permit number and the aquifer from which the water is withdrawn. Applicants shall maintain records of the amounts pumped from each well on a monthly basis and such records shall be provided to the Division Engineer or the State Engineer on request.

36. This Court retains jurisdiction in this case for the reconsideration of the final amounts of water appropriated by the proposed wells in accord with Paragraph 29 above. The Court's retained jurisdiction may be invoked only by the Applicants and JVRC, Inc. The Court's retained jurisdiction may be invoked by written notice to the Court requesting a hearing. Copies of that notice will be served on the parties herein at their latest address of record in this case.


Dated this 29 day of Oct., 1986.

BY THE COURT


Honorable John Tracey
Water Judge
Water Division No. 2
State of Colorado

APPROVED AS TO FORM AND SUBSTANCE:


SHERMAN & HOWARD

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The First Interstate Bank of
Denver N.A., Carla W. Lewis,
and Samuel S. Sherman as
Cotrustees under the Life
Insurance Trust of
Thomas M. Dines.

c: Sherman and Howard (Salazar)
Vranesh & Raisch (Shimmin)
Division Engineer
State Engineer

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Filed in the office of the
Clerk, District Court Water
Division No. 2, State of
Colorado

OCT 29 1986


Clerk

EXHIBIT A

The Subject Lands consist of the following:

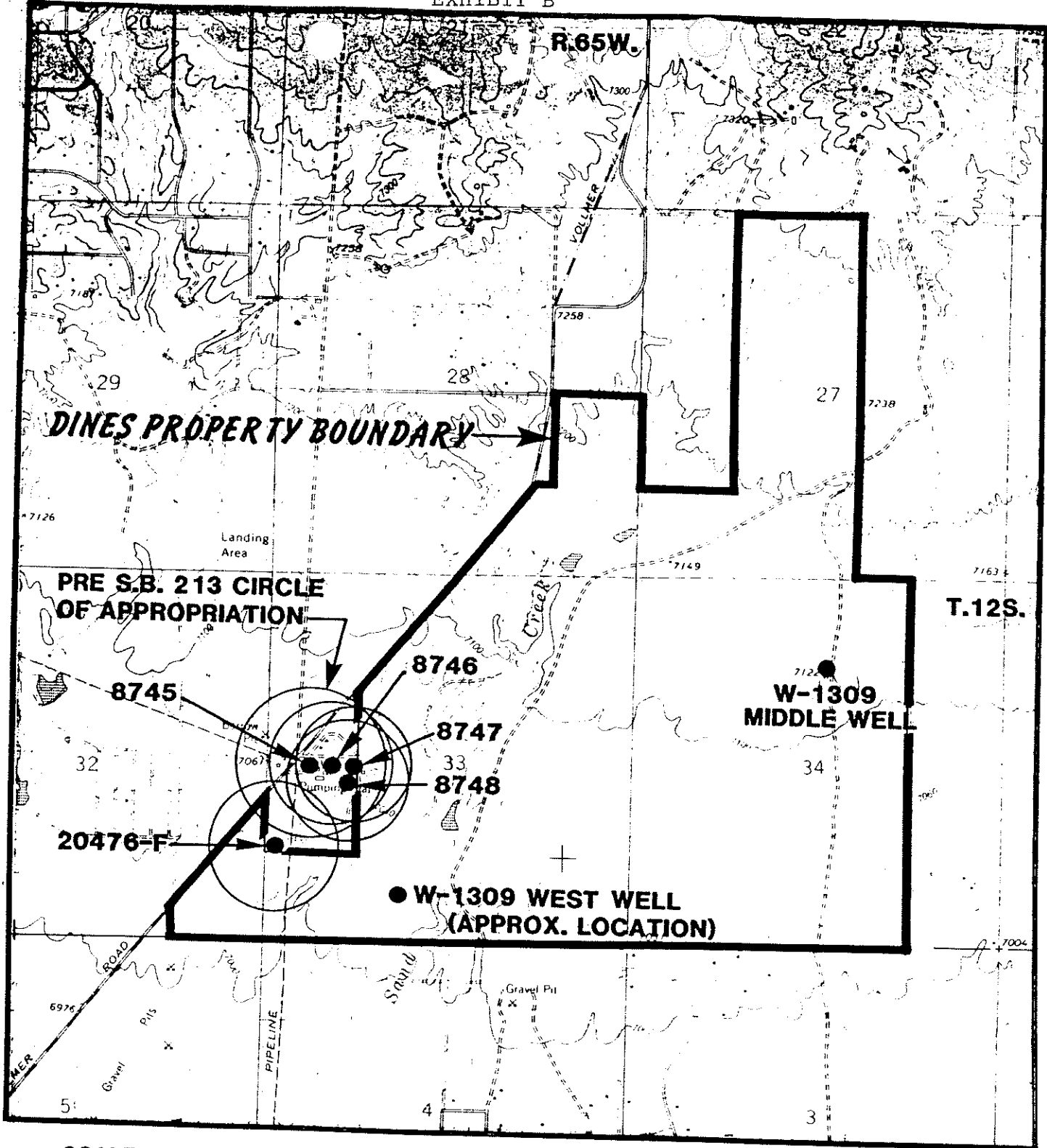
The W1/2 W1/2 E1/2 and the E1/2 W1/2 and the SW1/4 SW1/4 of Section 27; the E1/2 SE1/4 and that portion of the SW1/4 SE1/4 lying South and East of the County Road across said premises, both in Section 28; that portion of the SE1/4 SE1/4 of Section 32 lying South and East of said County Road, and that portion of the NE1/4 SE1/4 of said Section 32, lying South and East of said County Road; the E1/2 and the E1/2 SW1/4 and the SW1/4 SW1/4 of Section 33, and all that part of the NW1/4 of said Section 33 lying South and East of the said County Road across said premises, except that portion of the SW1/4 NW1/4 of said Section 33 lying South and East of said County Road containing approximately 10 acres deeded to Colorado Interstate Gas Company by Warranty Deed recorded in Book 1173 at Page 359 of the El Paso County Records; and the W1/2 E1/2 and the W1/2 of Section 34, all in Township 12 South, Range 65 West of the 6th P.M., located in El Paso County, Colorado.

Filed in the office of the
Clerk, District Court Water
Division No. 2, State of
Colorado

OCT 29 1988

Priscilla A. Lyons

Clerk



SCALE 1:24000

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Clerk, District Court Water
Division No. 2, State of
Colorado

LOCATION MAP

OCT 29 1986

FIGURE 1



Priscilla Lyons
Clerk

<p>DISTRICT COURT, WATER DIVISION 2, COLORADO</p> <p>Court Address: 501 North Elizabeth Street, Suite 116 Pueblo, CO 81003</p>	<p>DATE FILED: May 31, 2017 9:37 AM CASE NUMBER: 2017CW3002</p>
<p>CONCERNING THE APPLICATION FOR WATER RIGHTS OF:</p> <p>ARROYA INVESTMENTS, LLC, JACOB DECOTO, MARVIN ORNES and TERRI WAHLBERG</p> <p>IN EL PASO COUNTY</p>	<p>▲ COURT USE ONLY ▲</p> <hr/> <p>Case No.: 17CW3002</p>
<p>FINDINGS OF FACT, CONCLUSIONS OF LAW, RULING OF REFEREE AND DECREE</p>	

THIS MATTER comes before the Water Referee on the Application filed by Arroya Investments, LLC, Jacob Decoto, Marvin Ornes and Terri Wahlberg, and having reviewed said Application and other pleadings on file, and being fully advised on this matter, the Water Referee makes the following findings and orders:

GENERAL FINDINGS OF FACT

1. The applicants in this case are Arroya Investments, LLC (“Arroya”), Jacob Decoto (“Decoto”), Marvin Ornes (“Ornes”) and Terri Wahlberg (“Wahlberg”) (collectively, “Applicants”). Applicants are, collectively, the owners of the four separately owned parcels of land totaling approximately 335.59 acres under which the groundwater sought to be adjudicated herein are located, and are likewise the owners of the place of use where the water is anticipated to be put to beneficial use.
2. The Applicants filed this Application with the Water Court for Water Division 2 on January 31, 2017. The Application was referred to the Water Referee by order of the Court dated February 2, 2017.
3. The time for filing statements of opposition to the Application expired on the last day of March, 2017, and a no statements of opposition were timely filed.
4. On February 2, 2017, the Division 2 Water Court ordered that publication occur in the *Daily Transcript* within El Paso County.
5. The Clerk of this Court has caused publication of the Application filed in this matter as provided by statute and the publication costs have been paid. On February 15, 2017, proof of publication in the *Daily Transcript* was filed with the Court. All notices of the Application have been given in the manner required by law.

6. Pursuant to C.R.S. §37-92-302(2), the Office of the State Engineer has filed Determination of Facts for each aquifer with this Court dated March 14, 2017.

7. Pursuant to C.R.S. §37-92-302(4), the office of the Division Engineer for Water Division 2 filed its Consultation Report dated March 29, 2017, with the Court. The Consultation Report has been considered by the Water Referee in the entry of this Ruling.

8. The Water Court has jurisdiction over the subject matter of these proceedings and over all who have standing to appear as parties whether they have appeared or not. The land and water rights involved in this case are not within a designated groundwater basin.

GROUNDWATER RIGHTS

9. The Applicants requested the adjudication and quantification all Denver Basin groundwater in each aquifer underlying the four (4) specifically described parcels of land owned by each of the Applicants, respectively, as described herein. No plan for augmentation for the use of the not-nontributary groundwater was sought or is decreed herein. The Applicants shall construct such wells as necessary for withdrawal of Applicants' full entitlements of water supplies decreed herein. The following findings are made with respect to such underground water rights:

A. Property Description. All wells to all aquifers will be located on the Applicants respective properties. Such Properties are more specifically described as follows:

i. Arroya Parcel. The "Arroya Parcel" is an approximately 226 acre parcel located in the SE1/4 SE1/4 of Section 21, the W1/2 SW1/4 of Section 22, the E1/2 NE1/4 of Section 28, the W1/2 NW1/4 and the NW1/4 SW1/4 of Section 27, all in Township 21 South, Range 65 West of the 6th P.M., El Paso County, Colorado, as more particularly described on attached **Exhibit A**, and depicted on attached **Exhibit E**. The Arroya Parcel is owned by Applicant Arroya Investments, LLC.

ii. West Parcel No. 1. The "West Parcel No. 1" is an approximately 36.01 acre parcel located in the SW1/4 SE1/4 and the SE1/4 SE1/4 of Section 21, and the NE1/4 NE1/4 of Section 27, Township 12 South, Range 65 West of the 6th P.M., El Paso County, Colorado, as more particularly described on attached **Exhibit B**, and depicted on attached **Exhibit E**. The West Parcel No. 1 is owned by Applicant Jacob Decoto.

iii. West Parcel No. 2. The "West Parcel No. 2" is an approximately 36.03 acre parcel located in the SW1/4 SE1/4 and the SE1/4 SE1/4 of Section 21, Township 12 South, Range 65 West of the 6th P.M., El Paso County, Colorado, as more particularly described on attached **Exhibit C**, and depicted on attached **Exhibit E**. The West Parcel No. 2 is owned by Applicant Jacob Decoto.

iv. West Parcel No. 3. The “West Parcel No. 3” is an approximately 37.58 acre parcel located in the NW1/4 SE1/4 and the NE1/4 SE1/4 of Section 21, Township 12 South, Range 65 West of the 6th P.M., El Paso County, Colorado, as more particularly described on attached **Exhibit D**, and depicted on attached **Exhibit E**. The West Parcel No. 3 is owned by Applicants Marvin Ornes and Terri Wahlberg.

B. Existing Wells. There is currently one (1) existing well constructed to the Dawson aquifer on West Parcel No. 2 (Decoto): DWR Permit No. 4554, an exempt domestic well. DWR Permit No. 4554 is an exempt structure; water from the Dawson aquifer sufficient to allow for such continued exempt use has been excluded from the quantification herein. Two additional exempt domestic wells have been permitted since the filing of the application in this matter, DWR Permit No. 304551 on West Parcel No. 1 (Decoto), and DWR Permit No. 304498 on West Parcel No. 3 (Ornes/Wahlberg), and are excluded from quantification herein.

C. Additional Wells. Applicants anticipated additional wells will be constructed on each the Applicants’ respective properties. To the extent any additional wells may be constructed to the not-nontributary Dawson and/or Denver aquifer(s), such wells may be constructed only pursuant to a subsequent decree providing an approved plan for augmentation, or as exempt well structures pursuant to C.R.S. §37-92-602.

10. Of the statutorily described Denver Basin aquifers, the Dawson, Denver, Arapahoe, and Laramie-Fox Hills aquifers all exist beneath the Applicants’ respective properties. The Dawson and Denver aquifers contain not-nontributary water, while the water of the Arapahoe and Laramie-Fox Hills aquifers underlying the Applicants’ respective properties is nontributary. The quantity of water in the Denver Basin aquifers exclusive of artificial recharge underlying each of the Applicants’ respective properties as allocated on a pro-rata per acre basis from the amounts described in the State Engineer’s Determination of Facts, is as follows:

A. Arroya Parcel (225.97 acres):

Aquifer	Sand Thickness (Feet)	Total Ground Water Storage (Acre Feet)	Annual Average Withdrawal – 100 Years (Acre Feet)
Dawson (NNT)	270	12,202	122
Denver (NNT)	310	11,909	119.1
Arapahoe (NT)	255	9,796	98
Laramie-Fox Hills (NT)	190	6,440	64.4

B. West Parcel No. 1 (Decoto – 36.01 acres):

Aquifer	Sand Thickness (Feet)	Total Ground Water Storage (Acre Feet)	Annual Average Withdrawal – 100 Years (Acre Feet)
Dawson (NNT)	270	1,944.4	16.44 ¹
Denver (NNT)	310	1,897.7	18.98
Arapahoe (NT)	255	1,561	15.61
Laramie-Fox Hills (NT)	190	1,026.2	10.26

C. West Parcel No. 2 (Decoto – 36.03 acres):

Aquifer	Sand Thickness (Feet)	Total Ground Water Storage (Acre Feet)	Annual Average Withdrawal – 100 Years (Acre Feet)
Dawson (NNT)	270	1,945.4	16.45 ²
Denver (NNT)	310	1,898.8	18.99
Arapahoe (NT)	255	1,562	15.62
Laramie-Fox Hills (NT)	190	1,026.8	10.27

D. West Parcel No. 3 (Ornes & Wahlberg – 37.58 acres):

Aquifer	Sand Thickness (Feet)	Total Ground Water Storage (Acre Feet)	Annual Average Withdrawal – 100 Years (Acre Feet)
Dawson (NNT)	270	2,029.2	17.29 ³
Denver (NNT)	310	1,980.5	19.80
Arapahoe (NT)	255	1,629	16.29
Laramie-Fox Hills (NT)	190	1,071	10.7

¹ Three (3) annual acre feet of Dawson groundwater has been reserved from quantification herein for permitting of an exempt domestic well on this parcel pursuant to C.R.S. §37-92-602, *et seq.*, recently permitted as DWR Permit No. 304551.

² Three (3) annual acre feet of Dawson groundwater has been reserved from quantification herein for continued use of DWR Permit No. 4554 as an exempt domestic well on this parcel pursuant to C.R.S. §37-92-602, *et seq.*

³ Three (3) annual acre feet of Dawson groundwater has been reserved from quantification herein for permitting of an exempt domestic well on this parcel pursuant to C.R.S. §37-92-602, *et seq.*, recently permitted as DWR Permit No. 304498.

11. Pursuant to §37-90-137(9)(c.5)(I), C.R.S., the augmentation requirements for wells in the Dawson aquifer require the replacement to the effected stream systems of actual stream depletions on an annual basis, to the extent necessary to prevent injurious effect, based upon actual aquifer conditions. The augmentation requirements for wells to the Denver aquifer are for 4% of pumping. Applicants shall not be entitled to construct a non-exempt well or use water from the not-nontributary Dawson or Denver aquifers except pursuant to an approved augmentation plan in accordance with C.R.S. §37-90-137(9)(c.5).

12. Applicants shall be entitled to withdraw all legally available groundwater in the Denver Basin aquifers underlying Applicants' respective properties. Said amounts can be withdrawn over the 100-year life for the aquifers as set forth in C.R.S. §37-90-137(4), or withdrawn over a longer period of time based upon local governmental regulations or Applicants' water needs. The average annual amounts of ground water available for withdrawal from the underlying Denver Basin aquifers, based upon the 100-year aquifer life is determined and set forth above, based upon the March 14, 2017 Office of the State Engineer Determination of Facts. Such groundwater may be withdrawn from wells located upon the overlying land or contiguous properties with such contiguity to allow such withdrawal, consistent with the Denver Basin Rules as promulgated by the Office of the State Engineer, as may be amended from time to time.

13. Applicants shall be entitled to withdraw an amount of groundwater in excess of the average annual amount decreed herein from the Denver Basin aquifers underlying Applicants' respective properties, so long as the sum of the total withdrawals from wells in the aquifer does not exceed the product of the number of years since the date of issuance of the original well permit or the date of entry of the decree herein, whichever comes first, and the annual volume of water which Applicants are entitled to withdraw from the aquifer underlying Applicants' respective properties.

14. The Applicants shall have the right to use the ground water for beneficial uses on or off the Applicants' respective properties consisting of domestic, commercial, irrigation, stock water, recreation, wildlife, wetlands, fire protection, piscatorial, and for storage and augmentation associated with such uses. The amount of groundwater decreed for such uses upon the Applicants' respective properties is reasonable as such uses are to be made for the long term use and enjoyment of the Applicants' respective properties and are to establish and provide for adequate water reserves. The nontributary groundwater, may be used, reused, and successively used to extinction, both on and off the Applicants' respective properties subject, however, to the relinquishment of the right to consume two percent of such nontributary water withdrawn. Applicants may use such water by immediate application or by storage and subsequent application to the beneficial uses and purposes stated herein. Provided however, as set forth above, Applicants shall only be entitled to construct a non-exempt well or use water from the not-nontributary Dawson and Denver aquifers pursuant to a decreed augmentation plan entered by the Court. Withdrawals of groundwater available from the nontributary aquifers beneath the Applicants' respective properties in the

amounts determined in accordance with the provisions of this decree will not result in material injury to any other vested water rights or to any other owners or users of water.

15. Applicants may construct such wells on their respective properties as necessary for the withdrawal of all entitlements from each aquifer as described above, and such withdrawals may be made through any combination of wells. As to each of Applicants' respective properties, these wells shall be treated as a well field.

CONCLUSIONS OF LAW

16. The application for adjudication of Denver Basin groundwater was filed with the Water Clerk for Water Division 2 pursuant to C.R.S. §§37-92-302(1)(a) and 37-90-137(9)(c).

17. The Applicants' request for adjudication of these water rights is contemplated and authorized by law, and this Court and the Water Referee have exclusive jurisdiction over these proceedings. C.R.S. §§37-92-302(1)(a), 37-92-203, and 37-92-305.

18. Subject to the terms of this decree, the Applicants are entitled to the sole right to withdraw all the legally available water in the Denver Basin aquifers underlying the Applicants' respective properties, and the right to use that water to the exclusion of all others subject to the terms of this decree.

19. The Applicants have complied with C.R.S. §37-90-137(4), and the groundwater is legally available for withdrawal by the requested nontributary well(s), and legally available for withdrawal by the requested not-nontributary well(s) upon the entry of a subsequent decree approving an augmentation plan pursuant to C.R.S. §37-90-137(9)(c.5). Applicants are entitled to a decree from this Court confirming their rights to withdraw groundwater pursuant to C.R.S. §37-90-137(4).

20. The Denver Basin water rights applied for in this case are not conditional water rights, but are vested water rights determined pursuant to C.R.S. §37-90-137(4). No applications for diligence are required. The claims for nontributary and not-nontributary groundwater meet the requirements of Colorado Law.

21. The determination and quantification of the nontributary and not-nontributary groundwater rights in the Denver Basin aquifers as set forth herein is contemplated and authorized by law. C.R.S. §§37-90-137, and 37-92-302 through 37-92-305.

IT IS THEREFORE ORDERED, ADJUDGED AND DECREED AS FOLLOWS:

22. All of the foregoing Findings of Fact and Conclusions of Law are incorporated herein by reference, and are considered to be a part of this decretal portion as though set forth in full.

23. The Application for Adjudication of Denver Basin Groundwater proposed by the Applicants is approved, subject to the terms of this decree.

24. The Applicants have furnished acceptable proof as to all claims and, therefore, the Application for Adjudication of Groundwater as requested by the Applicants is granted and approved in accordance with the terms and conditions of this decree. Approval of this Application will not result in any material injury to senior vested water rights.

25. The Applicants shall comply with C.R.S. §37-90-137(9)(b), requiring the relinquishment of the right to consume two percent (2%) of the amount of the nontributary groundwater withdrawn. Ninety-eight percent (98%) of the nontributary groundwater withdrawn may therefore be consumed. No plan for augmentation shall be required to provide for such relinquishment.

26. The Court retains jurisdiction over this matter to make adjustments in the allowed average annual amount of withdrawal from the Denver Basin aquifers, either upwards or downwards, to conform to actual local aquifer characteristic, and that the Applicants need not refile, republish, or otherwise amend this application to request such adjustments.

A. At such time as adequate data may be available, Applicant or the State Engineer may invoke the Court's retained jurisdiction as provided in this Paragraph 26 for purposes of making a final determination of water rights as to the quantities of water available and allowed average annual withdrawals from any of the Denver Basin aquifers quantified and adjudicated herein. Any person seeking to invoke the Court's retained jurisdiction for such purpose shall file a verified petition with the Court setting forth with particularity the factual basis for such final determination of Denver Basin water rights under this decree, together with the proposed decretal language to effect the petition. Within four months of the filing of such verified petition, the State Engineer's Office shall utilize such information as available to make a final determination of water rights finding, and shall provide such information to the Court, Applicant, and the petitioning party.

B. If no protest is filed with the Court to such findings by the State Engineer's Office within sixty (60) days, this Court shall incorporate by entry of an Amended Decree such "final determination of water rights", and the provisions of this Paragraph 26 concerning adjustments to the Denver Basin ground water rights based upon local aquifer conditions shall no longer be applicable. In the event of a protest

being timely filed, or should the State Engineer's Office make no timely determination as provided in Paragraph 26.A., above, the "final determination of water rights" sought in the petition may be made by the Water Court after notice to all parties and following a full and fair hearing, including entry of an Amended Decree, if applicable in the Court's reasonable discretion.

27. Pursuant to C.R.S. §37-92-502(5)(a), the Applicants shall install and maintain such water measurement devices and recording devices as are deemed essential by the State Engineer or Division Engineers, and the same shall be installed and operated in accordance with instructions from said entities. Applicants are to install and maintain a totalizing flow meter on all wells, and any additional or replacement wells. Applicants are also to maintain records and provide reports to the State Engineer or Division Engineers as instructed by said entities, on at least an annual basis.

28. The vested water rights and water right structures decreed herein shall be subject to all applicable administrative rules and regulations, as currently in place or as may in the future be promulgated, of the offices of Colorado State and Division Engineers for administration of such water rights, to the extent such rules and regulations are uniformly applicable to other similarly situated water rights and water users.

29. This Ruling of Referee, when entered as a decree of the Water Court, shall be recorded in the real property records of El Paso County, Colorado. Copies of this ruling shall be mailed as provided by statute.

DATED THIS 5th day of May, 2017.

BY THE REFEREE:



Mardell R. DiDomenico

Mardell R. DiDomenico, Water Referee
Water Division 2

DECREE

THE COURT FINDS THAT NO PROTEST WAS MADE IN THIS MATTER, THEREFOR THE FORGOING RULING IS CONFIRMED AND APPROVED, AND IS HEREBY MADE THE JUDGMENT AND DECREE OF THIS COURT.

Dated: May 31, 2017.



BY THE COURT:


LARRY C. SCHWARTZ, WATER JUDGE
WATER DIVISION 2

EXHIBIT A

LEGAL DESCRIPTION – ARROYA PARCEL

A PARCEL OF LAND LOCATED IN A PORTION OF THE SOUTHEAST ONE-QUARTER (SE1/4) OF SECTION 21 AND A PORTION OF THE SOUTHWEST ONE-QUARTER OF SECTION 22, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE 6TH P.M., EL PASO COUNTY, COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BASIS OF BEARINGS: A LINE BETWEEN THE NORTHEAST CORNER OF THE NORTHWEST ONE-QUARTER OF THE NORTHWEST ONE-QUARTER (NW1/4 NW1/4) OF SECTION 27 AND THE SOUTHEAST CORNER OF THE NORTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER (NW1/4 SW1/4) OF SAID SECTION 27, TOWNSHIP 12 SOUTH, RANGE 65 WEST, MONUMENTED AT THE NORTHERLY END BY A 3-1/4" ALUMINUM CAP STAMPED "2006 ESI PLS 10376" AND MONUMENTED AT THE SOUTHERLY END BY A 3-1/4" ALUMINUM CAP STAMPED "2006 ESI PLS 10376" AND IS ASSUMED TO BEAR S00°54'30"E, A DISTANCE OF 3925.63 FEET;

COMMENCING AT THE NORTHEAST CORNER OF THE NORTHWEST ONE-QUARTER OF THE NORTHWEST ONE-QUARTER (NW1/4 NW1/4) OF SECTION 27;
THENCE S88°38'56"W ALONG THE NORTH LINE OF SAID NORTHWEST ONE-QUARTER OF THE NORTHWEST ONE-QUARTER (NW1/4 NW1/4), A DISTANCE OF 1047.88 FEET TO THE POINT OF BEGINNING OF THE PARCEL OF LAND HEREIN DESCRIBED;

THENCE S88°38'56"W CONTINUING ALONG SAID NORTH LINE, A DISTANCE OF 283.03 FEET TO THE NORTHWEST CORNER OF SAID SECTION 27 SAID POINT ALSO BEING A POINT ON THE EASTERLY RIGHT-OF-WAY LINE AS DESCRIBED IN THE DEED, AS RECORDED IN BOOK 2678 AT PAGE 431 OF THE RECORDS OF THE EL PASO COUNTY CLERK AND RECORDER;

THENCE ALONG THE EASTERLY AND NORTHERLY RIGHT-OF-WAY LINES OF SAID DEED THE FOLLOWING TWO (2) COURSES:

1. N00°37'14"W SAID LINE ALSO BEING THE WEST LINE OF THE SOUTHWEST ONE-QUARTER (SW1/4) OF SAID SECTION 22, A DISTANCE OF 30.00 FEET;
2. S89°40'23"W, A DISTANCE OF 736.82 FEET TO THE POINT OF INTERSECTION OF THE EASTERLY RIGHT-OF-WAY LINE AS DESCRIBED IN THE DEED, AS RECORDED IN BOOK 2678 AT PAGE 430 OF SAID COUNTY RECORDS;

THENCE N21°41'10"E ALONG SAID EASTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 1798.07 FEET;

THENCE N59°58'50"E, A DISTANCE OF 694.83 FEET;

THENCE S14°30'58"E, A DISTANCE OF 567.09 FEET;

THENCE N69°36'18"E, A DISTANCE OF 603.87 FEET;

THENCE S30°23'46"E, A DISTANCE OF 264.58 FEET;

THENCE S61°52'38"W, A DISTANCE OF 227.40 FEET;

THENCE S79°15'47"W, A DISTANCE OF 276.17 FEET;

THENCE S89°39'18"W, A DISTANCE OF 356.07 FEET;

THENCE S40°09'47"W, A DISTANCE OF 310.61 FEET;

THENCE S09°56'46"W, A DISTANCE OF 270.03 FEET;

THENCE S35°00'25"W, A DISTANCE OF 167.38 FEET;

THENCE S57°24'01"W, A DISTANCE OF 235.36 FEET;

THENCE S27°23'34"E, A DISTANCE OF 611.29 FEET TO THE POINT OF BEGINNING;

SAID PARCEL OF LAND CONTAINS A CALCULATED AREA OF 35.08 ACRES OF LAND, MORE OR LESS.

Along With:

A PARCEL OF LAND BEING THE NORTHWEST ONE-QUARTER OF THE NORTHWEST ONE-QUARTER (NW1/4 NW1/4) OF SECTION 27, THE SOUTHWEST ONE-QUARTER OF THE NORTHWEST ONE-QUARTER (SW1/4 NW1/4) OF SECTION 27, THE NORTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER (NW1/4 SW1/4) OF SECTION 27, A PORTION OF THE SOUTHEAST ONE-QUARTER OF THE NORTHEAST ONE-QUARTER OF SECTION 28 AND A PORTION OF THE NORTHEAST ONE-QUARTER OF THE NORTHEAST ONE-QUARTER (NE1/4 NE1/4) OF SECTION 28, ALL IN TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE 6TH P.M., EL PASO COUNTY, COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BASIS OF BEARINGS: A LINE BETWEEN THE NORTHEAST CORNER OF THE NORTHWEST ONE-QUARTER OF THE NORTHWEST ONE-QUARTER (NW1/4 NW1/4) OF SECTION 27 AND THE SOUTHEAST CORNER OF THE NORTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER (NW1/4 SW1/4) OF SAID SECTION 27, TOWNSHIP 12 SOUTH, RANGE 65 WEST, MONUMENTED AT THE NORTHERLY END BY A 3-1/4" ALUMINUM CAP STAMPED "2006 ESI PLS 10376" AND MONUMENTED AT THE SOUTHERLY END BY A 3-1/4" ALUMINUM CAP STAMPED "2006 ESI PLS 10376" AND IS ASSUMED TO BEAR S00°54'30"E, A DISTANCE OF 3925.63 FEET;

COMMENCING AT THE NORTHEAST CORNER OF THE NORTHWEST ONE-QUARTER OF THE NORTHWEST ONE-QUARTER (NW1/4 NW1/4) OF SECTION 27, SAID POINT ALSO BEING THE POINT OF BEGINNING OF THE PARCEL OF LAND HEREIN DESCRIBED;

THENCE S00°54'30"E ALONG THE EAST LINE OF THE WEST ONE-HALF (W1/2) OF SAID SECTION 27, A DISTANCE OF 3925.63 FEET TO THE SOUTHEAST CORNER OF THE NORTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER (NW1/4 SW1/4) OF SAID SECTION 27;

THENCE S87°35'00"W ALONG THE SOUTH LINE OF SAID NORTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER (NW1/4 SW1/4), A DISTANCE OF 1332.78 FEET TO THE SOUTHWEST CORNER OF SAID NORTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER (NW1/4 SW1/4);

THENCE N00°53'18"W ALONG THE WEST LINE OF SAID NORTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER (NW1/4 SW1/4), A DISTANCE OF 1316.78 FEET TO THE NORTHWEST CORNER OF SAID NORTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER (NW1/4 SW1/4);

THENCE S89°08'28"W ALONG THE SOUTH LINE OF THE SOUTHEAST ONE-QUARTER OF THE NORTHEAST ONE-QUARTER (SE1/4 NE1/4) OF SECTION 28, A DISTANCE OF 1326.68 FEET TO THE SOUTHWEST CORNER OF SAID SOUTHEAST ONE-QUARTER OF THE NORTHEAST ONE-QUARTER (SE1/4 NE1/4);

THENCE N00°30'49"W ALONG THE WEST LINE OF SAID SOUTHEAST ONE-QUARTER OF THE NORTHEAST ONE-QUARTER (SE1/4 NE1/4), A DISTANCE OF 1270.77 FEET TO A POINT ON THE EASTERLY RIGHT-OF-WAY LINE AS DESCRIBED IN THE DEED, AS RECORDED IN

BOOK 2678 AT PAGE 430 OF THE RECORDS OF THE EL PASO COUNTY CLERK AND RECORDER;

THENCE N21°41'10"E ALONG SAID EASTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 1450.84 FEET TO THE POINT OF INTERSECTION OF THE SOUTHERLY RIGHT-OF-WAY LINE AS DESCRIBED IN THE DEED, AS RECORDED IN BOOK 2678 AT PAGE 431 OF SAID COUNTY RECORDS;

THENCE ALONG THE SOUTHERLY AND EASTERLY RIGHT-OF-WAY LINES OF SAID DEED THE FOLLOWING TWO (2) COURSES:

1. N89°40'23"E, A DISTANCE OF 761.52 FEET TO A POINT ON THE EAST LINE OF SAID NORTHEAST ONE-QUARTER OF THE NORTHEAST ONE-QUARTER (NE1/4 NE1/4);
2. N00°52'58"W ALONG SAID EAST LINE, A DISTANCE OF 30.00 FEET TO THE NORTHWEST CORNER OF SAID SECTION 27;

THENCE N88°38'56"E ALONG THE NORTH LINE OF SAID NORTHWEST ONE-QUARTER OF THE NORTHWEST ONE-QUARTER (NW 1/4 NW1/4), A DISTANCE OF 1330.91 FEET TO THE POINT OF BEGINNING;

SAID PARCEL OF LAND CONTAINS A CALCULATED AREA OF 190.89 ACRES OF LAND, MORE OR LESS.

Attachment to Order - 2017-0173002

EXHIBIT B

LEGAL DESCRIPTION TRAILS AT TIMBERLINE WEST PARCEL 1:

A PARCEL OF LAND LOCATED IN A PORTION OF THE SOUTHEAST ONE-QUARTER (SE1/4) OF SECTION 21 AND A PORTION OF THE NORTHEAST ONE-QUARTER (NE1/4) OF SECTION 28, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE 6TH P.M.L. EL PASO COUNTY, COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BASIS OF BEARINGS: THE WEST LINE OF THE SOUTHEAST ONE-QUARTER (SE1/4) OF SECTION 21, TOWNSHIP 12 SOUTH, RANGE 65 WEST IS ASSUMED TO BEAR N00°25'32"W, A DISTANCE OF 2638.53 FEET.

COMMENCING AT THE SOUTHWEST CORNER OF SAID SOUTHWEST ONE-QUARTER (SW1/4), SAID POINT ALSO BEING THE POINT OF BEGINNING OF THE PARCEL OF LAND HEREIN DESCRIBED:

THENCE N00°25'32"W ALONG THE WEST LINE OF SAID SOUTHEAST ONE-QUARTER (SE1/4), A DISTANCE OF 650.11 FEET.

THENCE N89°40'51"E, A DISTANCE OF 2077.12 FEET TO A POINT ON THE WESTERLY RIGHT-OF-WAY LINE OF VOLLMER ROAD AS DESCRIBED IN THE DOCUMENT RECORDED IN BOOK 2678 AT PAGE 430 OF THE RECORDS OF THE EL PASO COUNTY CLERK AND RECORDER.

THENCE S21°41'10"W ALONG SAID WESTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 2013.88 FEET TO A POINT ON THE EAST LINE OF THE NORTHWEST ONE-QUARTER OF THE NORTHEAST ONE-QUARTER (NW1/4 NE1/4) OF SAID SECTION 28.

THENCE N00°41'13"W ALONG SAID EAST LINE, A DISTANCE OF 1212.12 FEET TO THE SOUTHWEST CORNER OF THE SOUTHWEST ONE-QUARTER OF THE SOUTHEAST ONE-QUARTER (SW1/4 SE1/4) OF SAID SECTION 21.

THENCE S89°40'14"W ALONG THE SOUTH LINE OF SAID SOUTHWEST ONE-QUARTER OF THE SOUTHEAST ONE-QUARTER (SW1/4 SE1/4), A DISTANCE OF 1343.49 FEET TO THE POINT OF BEGINNING.

SAID PARCEL OF LAND CONTAINS A CALCULATED AREA OF 38.01 ACRES OF LAND, MORE OR LESS.

Attachment to Order - 2011-0002

EXHIBIT C

LEGAL DESCRIPTION TRAILS AT TIMBERLINE WEST PARCEL 2:

A PARCEL OF LAND LOCATED IN A PORTION OF THE SOUTHEAST ONE-QUARTER (SE1/4) OF SECTION 21, TOWNSHIP 12 SOUTH, RANGE 68 WEST OF THE SIXTH PRINCIPAL MERIDIAN, EL PASO COUNTY, COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BASIS OF BEARINGS, THE WEST LINE OF THE SOUTHEAST ONE-QUARTER (SE1/4) OF SECTION 21, TOWNSHIP 12 SOUTH, RANGE 68 WEST IS ASSUMED TO BEAR N00°25'32"W, A DISTANCE OF 3638.53 FEET;

COMMENCING AT THE SOUTHWEST CORNER OF SAID SOUTHEAST ONE-QUARTER (SE1/4);

THENCE N00°25'32"W ALONG THE WEST LINE OF SAID SOUTHEAST ONE-QUARTER (SE1/4), A DISTANCE OF 650.13 FEET TO THE POINT OF BEGINNING OF THE PARCEL OF LAND HEREIN DESCRIBED;

THENCE N00°25'32"W CONTINUING ALONG SAID WEST LINE, A DISTANCE OF 706.70 FEET;

THENCE N89°40'31"E, A DISTANCE OF 2364.04 FEET TO A POINT ON THE WESTERLY RIGHT-OF-WAY LINE OF VOLLMER ROAD AS DESCRIBED IN THE DOCUMENT RECORDED IN BOOK 2678 AT PAGE 430 OF THE RECORDS OF THE EL PASO COUNTY CLERK AND RECORDER;

THENCE S21°41'10"W ALONG SAID WESTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 762.36 FEET;

THENCE S89°40'31"W, A DISTANCE OF 2077.32 FEET TO THE POINT OF BEGINNING.

SAID PARCEL OF LAND CONTAINS A CALCULATED AREA OF 38.03 ACRES OF LAND, MORE OR LESS.

Attachment to Order - 2017-CM-0002

EXHIBIT D

LEGAL DESCRIPTION TRAILS AT TIMBERLINE WEST PARCEL 3:

A PARCEL OF LAND LOCATED IN A PORTION OF THE SOUTHEAST ONE-QUARTER (SE1/4) OF SECTION 21, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, EL PASO COUNTY, COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BASIS OF BEARINGS: THE WEST LINE OF THE SOUTHEAST ONE-QUARTER (SE1/4) OF SECTION 21, TOWNSHIP 12 SOUTH, RANGE 65 WEST IS ASSUMED TO BEAR N00°25'32"W, A DISTANCE OF 2658.53 FEET.

COMMENCING AT THE SOUTHWEST CORNER OF SAID SOUTHEAST ONE-QUARTER (SE1/4);
THENCE N00°25'32"W ALONG THE WEST LINE OF SAID SOUTHEAST ONE-QUARTER (SE1/4), A DISTANCE OF 1356.81 FEET TO THE POINT OF BEGINNING OF THE PARCEL OF LAND HEREIN DESCRIBED;
THENCE N00°25'32"W CONTINUING ALONG SAID WEST LINE, A DISTANCE OF 656.30 FEET;
THENCE N88°40'31"E, A DISTANCE OF 2590.16 FEET TO A POINT ON THE WESTERLY RIGHT-OF-WAY LINE OF VOLLMER ROAD AS DESCRIBED IN THE DOCUMENT RECORDED IN BOOK 2678 AT PAGE 430 OF THE RECORDS OF THE EL PASO COUNTY CLERK AND RECORDER;

THENCE ALONG SAID WESTERLY RIGHT-OF-WAY LINE THE FOLLOWING TWO (2) COURSES:

1. S00°37'14"E, A DISTANCE OF 95.54 FEET;
2. S21°W10'W, A DISTANCE OF 891.81 FEET;

THENCE S88°40'31"W, A DISTANCE OF 2364.04 FEET TO THE POINT OF BEGINNING.

SAID PARCEL OF LAND CONTAINS A CALCULATED AREA OF 37.58 ACRES OF LAND, MORE OR LESS.

Attachment to Order - 2017CW3002

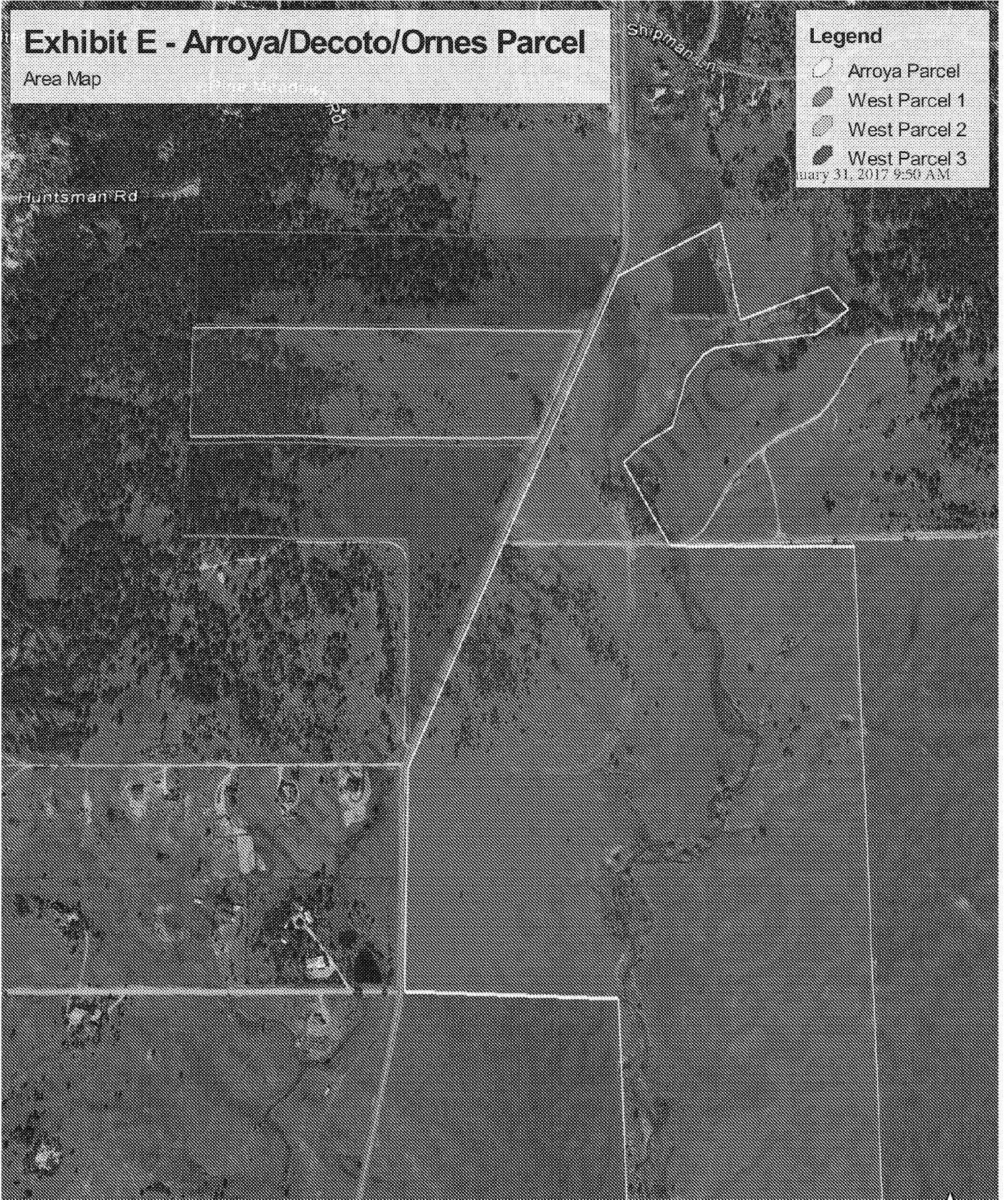
Exhibit E - Arroya/Decoto/Ornes Parcel

Area Map

Legend

- Arroya Parcel
- ▨ West Parcel 1
- ▩ West Parcel 2
- ▧ West Parcel 3

January 31, 2017 9:50 AM



DISTRICT COURT, WATER DIVISION 2, CO Court Address: 501 North Elizabeth Street, Suite 116 Pueblo, CO 81003 Phone Number: (719) 404-8832	DATE FILED: August 9, 2018 3:38 PM CASE NUMBER: 2018CW3002
CONCERNING THE APPLICATION FOR WATER RIGHTS OF: ARROYA INVESTMENTS, LLC IN EL PASO COUNTY	▲ COURT USE ONLY ▲ Case No.: 18CW3002 (17CW3002)
FINDINGS OF FACT, CONCLUSIONS OF LAW, RULING OF REFEREE AND DECREE	

THIS MATTER comes before the Water Referee on the Application filed by Arroya Investments, LLC, and having reviewed said Application and other pleadings on file, and being fully advised on this matter, the Water Referee makes the following findings and orders:

GENERAL FINDINGS OF FACT

1. The applicant in this case is Arroya Investments, LLC, whose address is 1283 Kelly Johnson Blvd., Colorado Springs, CO 80920 ("Applicant"). Applicant is the owner of the land totaling approximately 72.5 acres (a portion of the larger 225.97-acre Arroya Parcel previously adjudicated in Case No. 17CW3002), on which the structures sought to be adjudicated herein are located, and are the owners of the place of use where the water will be put to beneficial use.
2. The Applicant filed this Application with the Water Court for Water Division 2 on January 9, 2018. The Application was referred to the Water Referee in Division 2 on or about January 18, 2018.
3. The time for filing statements of opposition to the Application expired on the last day of March 2018. No Statements of Opposition were timely filed.
4. On January 18, 2018, the Water Court, Division 2 ordered that publication occur in the *Daily Transcript* within El Paso County.
5. The Clerk of this Court has caused publication of the Application filed in this matter as provided by statute and the publication costs have been paid. On February 15, 2018, proof of publication in the *Daily Transcript* was filed with Water

Court Division 2. All notices of the Application have been given in the manner required by law.

6. Pursuant to C.R.S. §37-92-302(4), the office of the Division Engineer for Water Division 2 has filed its Consultation Report dated May 2, 2018, with the Court, and a Response to the Consultation Report was filed by the Applicant on June 26, 2018. Both the Consultation Report and Response have been considered by the Water Referee in the entry of this Ruling.

7. The Water Court has jurisdiction over the subject matter of these proceedings and over all who have standing to appear as parties whether they have appeared or not. The land and water rights involved in this case are not within a designated groundwater basin.

8. The Applicant, consistent with the decree entered in Case No. 17CW3002, seeks to utilize ground water rights granted therein for the construction of Timber Ridge Wells Nos. 1 through 29 to the Dawson aquifer, and additional or replacement wells associated therewith, for withdrawal of Applicant's full entitlements of supply under the plan for augmentation sought herein.

9. The land overlying the groundwater subject to the adjudication in this case is owned by the Applicant and was previously quantified in Case No. 17CW3002, which concerned a 225.97 acre parcel of land located in El Paso County, Colorado ("Arroya Parcel"). The land relevant to this decree consists of an approximately 72.5 acre portion of the larger Arroya Parcel as described in Case No. 17CW3002, located in a portion of the SE¹/₄ of Section 21 and a portion of the SW¹/₄ of Section 22, Township 12 South, Range 65 West of the 6th P.M., El Paso County, Colorado, as more particularly described on the attached **Exhibit A**, and depicted on the attached **Exhibit B** map ("Subject Property"). Applicant intends to subdivide the property into up to twenty-nine (29) lots of approximately 2.5 acres each. All groundwater adjudicated herein shall be withdrawn from the overlying land.

10. Timber Ridge Wells Nos. 1 through 29: Each of the Timber Ridge Wells Nos. 1 through 29 are to be constructed to the not-nontributary Dawson aquifer pursuant to the Plan for Augmentation decreed herein to provide domestic water supplies to a single family residence to be located upon the subdivided Subject Property. Upon entry of this decree and submittal by the Applicant of a complete well permit application and filing fee, the State Engineer shall issue a revised permit for Timber Ridge Wells Nos. 1 through 29 pursuant to C.R.S. §37-90-137(4), consistent with and references the Plan for Augmentation decreed herein.

PLAN FOR AUGMENTATION

11. The structures to be augmented are Timber Ridge Wells Nos. 1 through 29 in the not-nontributary Dawson aquifer underlying the Applicant's Property, along with any additional or replacement wells associated therewith.

12. Pursuant to C.R.S. §37-90-137(9)(c.5), the augmentation obligation for Timber Ridge Wells Nos. 1 through 29, and any additional or replacement wells constructed to the Dawson aquifer requires the replacement of actual stream depletions to the extent necessary to prevent any injurious effect. The water rights to be used for augmentation during pumping are the septic return flows of the not-nontributary Timber Ridge Wells Nos. 1 through 29, to be pumped as set forth in this plan for augmentation. The water rights to be used for augmentation after pumping are a reserved portion of Applicant's nontributary water rights in the Laramie-Fox Hills aquifers. Applicant shall provide for the augmentation of stream depletions caused by pumping the Timber Ridge Wells Nos. 1 through 29 as approved herein. Water use criteria as follows:

A. Use: The Timber Ridge Wells Nos. 1 through 29 may each pump up to 0.32 acre feet of water per year, for a maximum total of 9.32 acre feet being withdrawn from the Dawson aquifer annually. Households will utilize up to 0.26 acre feet of water per year per residence, with the additional pumping available for landscape irrigation, the watering of horses or equivalent livestock, and other beneficial uses decreed in 17CW3002 at each residence. The foregoing figures assume the use of 29 septic systems, with resulting return flows from each. Should Applicant subdivide Applicant's property into fewer than 29 lots, both depletions and return flows for the replacement of the same will be correspondingly reduced, though pumping for uses other than household use may be increased provided at all times septic return flows shall replace the maximum depletions resulting from pumping.

B. Depletions: Applicant has determined that maximum stream depletions over the 300-year pumping period will amount to approximately fifty-six percent (56%) of pumping. Maximum annual depletions for total residential pumping from all wells is therefore 5.22 acre feet in year 300. Should Applicant's pumping be less than the 0.32 acre feet per lot described herein, or should fewer lots be developed, resulting depletions and required replacements will be correspondingly reduced.

C. Augmentation of Depletions During Pumping Life of Wells: Depletions during pumping will be effectively replaced by residential return flows from non-evaporative septic systems. The annual consumptive use for non-evaporative septic systems is 10% per year per residence. At a conservatively estimated household use rate of 0.18 acre feet per residence per year (rather than the full 0.26 acre feet annually), a total of 5.22 acre feet is replaced to the stream system per year, utilizing non-evaporative septic systems, assuming all 29 wells are utilized. With maximum depletions from the pumping of 29 wells at 0.18 acre feet, and anticipated replacement of 5.22 acre feet annually, during pumping, stream depletions will be adequately augmented.

D. Augmentation of Post Pumping Depletions: This plan for augmentation shall have a pumping period of a minimum of 300 years. For the replacement of any injurious post-pumping depletions which may be associated with the use of the Timber Ridge Wells Nos. 1 through 29, Applicant will reserve up to 2,796

acre feet of water from the nontributary Laramie Fox Hills aquifer, less actual stream depletions replaced during the plan pumping period as necessary to replace any injurious post pumping depletions. Applicant also reserves the right to substitute other legally available augmentation sources for such post pumping depletions upon further approval of the Court under its retained jurisdiction. Even though this reservation is made, under the Court's retained jurisdiction, Applicant reserves the right in the future to prove that post pumping depletions will be noninjurious. The reserved nontributary Laramie-Fox Hills groundwater will be used to replace any injurious post-pumping depletions. Upon entry of a decree in this case, the Applicant will be entitled to apply for and receive a new well permit for the Timber Ridge Wells Nos. 1 through 29 for the uses in accordance with this Application and otherwise in compliance with C.R.S. §37-90-137.

13. This decree, upon recording, shall constitute a covenant running with Applicant's Property, benefitting and burdening said land, and requiring construction of well(s) to the nontributary Laramie-Fox Hills aquifer and pumping of water to replace any injurious post-pumping depletions under this decree. Subject to the requirements of this decree, in order to determine the amount and timing of post-pumping replacement obligations, if any, under this augmentation plan, Applicant or its successors shall use information commonly used by the Colorado Division of Water Resources for augmentation plans of this type at the time. Pursuant to this covenant, the water from the nontributary Laramie-Fox Hills aquifer reserved herein may not be severed in ownership from the overlying subject property. This covenant shall be for the benefit of, and enforceable by, third parties owning vested water rights who would be materially injured by the failure to provide for the replacement of post-pumping depletions under the decree, and shall be specifically enforceable by such third parties against the owner of the Applicant's Property.

14. Applicant or its successors shall be required to initiate pumping from the Laramie-Fox Hills aquifer for the replacement of post-pumping depletions when either: (i) the absolute total amount of water available from the Dawson aquifer allowed to be withdrawn under the plan for augmentation decreed herein has been pumped; (ii) the Applicant or its successors in interest have acknowledged in writing that all withdrawals for beneficial use through the Timber Ridge Wells Nos. 1 through 29 have permanently ceased, (iii) a period of 10 consecutive years where either no withdrawals of groundwater has occurred, or (iv) accounting shows that return flows from the use of the water being withdrawn is insufficient to replace depletions caused by the withdrawals that already occurred.

15. Accounting and responsibility for post-pumping depletions in the amount set forth herein shall continue for the shortest of the following periods: (i) the period provided by statute; (ii) the period specified by any subsequent change in statute; (iii) the period required by the Court under its retained jurisdiction; (iv) the period determined by the State Engineer; or (v) the period as established by Colorado Supreme Court final decisions. Should Applicant's obligation hereunder to account for and replace such post-pumping stream depletions be abrogated for any reason, then

the Laramie-Fox Hills aquifer groundwater reserved for such a purpose shall be free from the reservation herein and such groundwater may be used or conveyed by its owner without restriction for any post-pumping depletions.

16. The term of this augmentation plan is for a minimum of 300 years, however, the length of the plan for a particular well or wells may be extended beyond such time provided the total plan pumping allocated to such well or wells is not exceeded. Should the actual operation of this augmentation plan depart from the planned diversions described herein such that annual diversions are increased or the duration of the plan is extended, the Applicant must prepare and submit a revised model of stream depletions caused by the actual pumping schedule. This analysis must utilize depletion modeling acceptable to the State Engineer, and to this Court, and must represent the water use under the plan for the entire term of the plan to date. The analysis must show that return flows have equaled or exceeded actual stream depletions throughout the pumping period and that reserved nontributary water remains sufficient to replace post-pumping depletions.

17. Consideration has been given to the depletions from Applicant's use and proposed uses of water, in quantity, time and location, together with the amount and timing of augmentation water which will be provided by the Applicant, and the existence, if any, injury to any owner of or person entitled to use water under a vested water right.

18. It is determined that the timing, quantity and location of replacement water under the protective terms in this decree are sufficient to protect the vested rights of other water users and eliminate material injury thereto. The replacement water shall be of a quantity and quality so as to meet the requirements for which the water of senior appropriators has normally been used, and provided of such quality, such replacement water shall be accepted by the senior appropriators for substitution for water derived by the exercise of the Timber Ridge Wells Nos. 1 through 29. As a result of the operation of this plan for augmentation, the depletions from the Timber Ridge Wells Nos. 1 through 29 and any additional or replacement wells associated therewith will not result in material injury to the vested water rights of others.

CONCLUSIONS OF LAW

19. The Applicant's request for adjudication of the plan for augmentation decreed herein is contemplated and authorized by law, and this Court and the Water Referee have exclusive jurisdiction over these proceedings. C.R.S. §§37-92-302(1)(a), 37-92-203, and 37-92-305.

20. Subject to the terms of the 17CW3002 decree, the Applicant is entitled to the sole right to withdraw all the legally available water in the Denver Basin aquifers underlying the Applicant's Property, and the right to use that water to the exclusion of all others subject to the terms of said 17CW3002 decree.

21. The Applicant's request for approval of a plan for augmentation is contemplated and authorized by law. If administered in accordance with this decree, this plan for augmentation will permit the uninterrupted diversions from the Timber Ridge Wells Nos. 1 through 29 without adversely affecting any other vested water rights in the Arkansas River or its tributaries and when curtailment would otherwise be required to meet a valid senior call for water. C.R.S. §§37-92-305(3),(5), and (8).

IT IS THEREFORE ORDERED, ADJUDGED AND DECREED AS FOLLOWS:

22. All of the foregoing Findings of Fact and Conclusions of Law are incorporated herein by reference, and are considered to be a part of this decretal portion as though set forth in full.

23. The Application for Adjudication of Denver Basin Groundwater and for Approval of Plan for Augmentation proposed by the Applicant is approved, subject to the terms of this decree.

24. The Applicant has furnished acceptable proof as to all claims and, therefore, the Application for Adjudication of Groundwater and Plan for Augmentation, as requested by the Applicant, is granted and approved in accordance with the terms and conditions of this decree. Approval of this Application will not result in any material injury to senior vested water rights.

25. The Applicant shall comply with C.R.S. §37-90-137(9)(b), requiring the relinquishment of the right to consume two percent (2%) of the amount of the nontributary groundwater withdrawn. Ninety-eight percent (98%) of the nontributary groundwater withdrawn may therefore be consumed. No plan for augmentation shall be required to provide for such relinquishment.

26. The State Engineer, the Division Engineer, and/or the Water Commissioner shall not curtail the diversion and use of water covered by the Timber Ridge Wells Nos. 1 through 29 so long as the return flows from the annual diversions associated with the Timber Ridge Wells Nos. 1 through 29 accrue to the stream system pursuant to the conditions contained herein. To the extent that Applicant or one of its successors or assigns is ever unable to provide the replacement water required, then the Timber Ridge Wells Nos. 1 through 29 shall not be entitled to operate under the protection of this plan, and shall be subject to administration and curtailment in accordance with the laws, rules, and regulation of the State of Colorado. Pursuant to C.R.S. §37-92-305(8), the State Engineer shall curtail all out-of-priority diversions which are not so replaced as to prevent injury to vested water rights. In order for this plan for augmentation to operate, return flows from the one or both of the septic systems discussed herein, as appropriate, shall at all times during pumping be in an amount sufficient to replace the amount of stream depletions.

27. Pursuant to C.R.S. §37-92-304(6), the Court shall retain continuing jurisdiction over the plan for augmentation decreed herein for reconsideration of the question of whether the provisions of this decree are necessary and/or sufficient to prevent injury to vested water rights of others, as pertains to the use of Denver Basin groundwater supplies adjudicated herein, including for augmentation purposes.

28. Except as otherwise specifically provided in Paragraph 28, above, pursuant to the provisions of C.R.S. §37-92-304(6), this plan for augmentation decreed herein shall be subject to the reconsideration of this Court on the question of material injury to vested water rights of others, for a period of five (5) years, except as otherwise provided herein. Any person, within such period, may petition the Court to invoke its retained jurisdiction. Any person seeking to invoke the Court's retained jurisdiction shall file a verified petition with the Court setting forth with particularity the factual basis for requesting that the Court reconsider material injury to petitioner's vested water rights associated with the operation of this decree, together with proposed decretal language to effect the petition. The party filing the petition shall have the burden of proof of going forward to establish a prima facie case based on the facts alleged in the petition. If the Court finds those facts are established, Applicant shall thereupon have the burden of proof to show: (i) that the petitioner is not materially injured, or (ii) that any modification sought by the petitioner is not required to avoid material injury to the petitioner, or (iii) that any term or condition proposed by Applicant in response to the petition does avoid material injury to the petitioner. The Division of Water Resources as a petitioner shall be entitled to assert material injury to the vested water rights of others. If no such petition is filed within such period and the retained jurisdiction period is not extended by the Court in accordance with the revisions of the statute, this matter shall become final under its own terms.

29. Pursuant to C.R.S. §37-92-502(5)(a), the Applicant shall install and maintain such water measurement devices and recording devices as are deemed essential by the State Engineer or Division Engineers, and the same shall be installed and operated in accordance with instructions from said entities. Applicant is to install and maintain a totalizing flow meters on all Timber Ridge Wells or any additional or replacement wells associated therewith. Applicant is also to maintain records and provide reports to the State Engineer or Division Engineers as instructed by said entities, on at least an annual basis.

30. The vested water rights, water right structures, and plan for augmentation decreed herein shall be subject to all applicable administrative rules and regulations, as currently in place or as may in the future be promulgated, of the offices of Colorado State and Division Engineers for administration of such water rights, to the extent such rules and regulations are uniformly applicable to other similarly situated water rights and water users.

31. This Ruling of Referee, when entered as a decree of the Water Court, shall be recorded in the real property records of El Paso County, Colorado. Copies of this ruling shall be mailed as provided by statute.

DATED THIS 18th day of July, 2018.

BY THE REFEREE:

Mardell R. DiDomenico



Mardell R. DiDomenico, Water Referee
Water Division 2

DECREE

THE COURT FINDS THAT NO PROTEST WAS MADE IN THIS MATTER, THEREFOR THE FORGOING RULING IS CONFIRMED AND APPROVED, AND IS HEREBY MADE THE JUDGMENT AND DECREE OF THIS COURT.

Dated: August 9th, 2018.



BY THE COURT:

Larry C. Schwartz

LARRY C. SCHWARTZ, WATER JUDGE
WATER DIVISION 2

EXHIBIT A

LEGAL DESCRIPTION – ARROYA PARCEL

A PARCEL OF LAND LOCATED IN A PORTION OF THE SOUTHEAST ONE-QUARTER (SE1/4) OF SECTION 21 AND A PORTION OF THE SOUTHWEST ONE-QUARTER OF SECTION 22, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE 6TH P.M., EL PASO COUNTY, COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BASIS OF BEARINGS: A LINE BETWEEN THE NORTHEAST CORNER OF THE NORTHWEST ONE-QUARTER OF THE NORTHWEST ONE-QUARTER (NW1/4 NW1/4) OF SECTION 27 AND THE SOUTHEAST CORNER OF THE NORTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER (NW1/4 SW1/4) OF SAID SECTION 27, TOWNSHIP 12 SOUTH, RANGE 65 WEST, MONUMENTED AT THE NORTHERLY END BY A 3-1/4" ALUMINUM CAP STAMED "2006 ESI PLS 10376" AND MONUMENTED AT THE SOUTHERLY END BY A 3-1/4" ALUMINUM CAP STAMPED "2006 ESI PLS 10376" AND IS ASSUMED TO BEAR S00°54'30"E, A DISTANCE OF 3925.63 FEET;

COMMENCING AT THE NORTHEAST CORNER OF THE NORTHWEST ONE-QUARTER OF THE NORTHWEST ONE-QUARTER (NW1/4 NW1/4) OF SECTION 27;
THENCE S88°38'56"W ALONG THE NORTH LINE OF SAID NORTHWEST ONE-QUARTER OF THE NORTHWEST ONE-QUARTER (NW1/4 NW1/4), A DISTANCE OF 1047.88 FEET TO THE POINT OF BEGINNING OF THE PARCEL OF LAND HEREIN DESCRIBED;

THENCE S88°38'56"W CONTINUING ALONG SAID NORTH LINE, A DISTANCE OF 283.03 FEET TO THE NORTHWEST CORNER OF SAID SECTION 27 SAID POINT ALSO BEING A POINT ON THE EASTERLY RIGHT-OF-WAY LINE AS DESCRIBED IN THE DEED, AS RECORDED IN BOOK 2678 AT PAGE 431 OF THE RECORDS OF THE EL PASO COUNTY CLERK AND RECORDER;

THENCE ALONG THE EASTERLY AND NORTHERLY RIGHT-OF-WAY LINES OF SAID DEED THE FOLLOWING TWO (2) COURSES:

1. N00°37'14"W SAID LINE ALSO BEING THE WEST LINE OF THE SOUTHWEST ONE-QUARTER (SW1/4) OF SAID SECTION 22, A DISTANCE OF 30.00 FEET;
2. S89°40'23"W, A DISTANCE OF 736.82 FEET TO THE POINT OF INTERSECTION OF THE EASTERLY RIGHT-OF-WAY LINE AS DESCRIBED IN THE DEED, AS RECORDED IN BOOK 2678 AT PAGE 430 OF SAID COUNTY RECORDS;

THENCE N21°41'10"E ALONG SAID EASTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 1798.07 FEET;

THENCE N59°58'50"E, A DISTANCE OF 694.83 FEET;

THENCE S14°30'58"E, A DISTANCE OF 567.09 FEET;

THENCE N69°36'18"E, A DISTANCE OF 603.87 FEET;

THENCE S30°23'46"E, A DISTANCE OF 264.58 FEET;

THENCE S61°52'38"W, A DISTANCE OF 227.40 FEET;

THENCE S79°15'47"W, A DISTANCE OF 276.17 FEET;

THENCE S89°39'18"W, A DISTANCE OF 356.07 FEET;

THENCE S40°09'47"W, A DISTANCE OF 310.61 FEET;

THENCE S09°56'46"W, A DISTANCE OF 270.03 FEET;

THENCE S35°00'25"W, A DISTANCE OF 167.38 FEET;

THENCE S57°24'01"W, A DISTANCE OF 235.36 FEET;

THENCE S27°23'34"E, A DISTANCE OF 611.29 FEET TO THE POINT OF BEGINNING;

SAID PARCEL OF LAND CONTAINS A CALCULATED AREA OF 35.08 ACRES OF LAND, MORE OR LESS.

Along With:

A PARCEL OF LAND BEING THE NORTHWEST ONE-QUARTER OF THE NORTHWEST ONE-QUARTER (NW1/4 NW1/4) OF SECTION 27, THE SOUTHWEST ONE-QUARTER OF THE NORTHWEST ONE-QUARTER (SW1/4 NW1/4) OF SECTION 27, THE NORTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER (NW1/4 SW1/4) OF SECTION 27, A PORTION OF THE SOUTHEAST ONE-QUARTER OF THE NORTHEAST ONE-QUARTER OF SECTION 28 AND A PORTION OF THE NORTHEAST ONE-QUARTER OF THE NORTHEAST ONE-QUARTER (NE1/4 NE1/4) OF SECTION 28, ALL IN TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE 6TH P.M., EL PASO COUNTY, COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BASIS OF BEARINGS: A LINE BETWEEN THE NORTHEAST CORNER OF THE NORTHWEST ONE-QUARTER OF THE NORTHWEST ONE-QUARTER (NW1/4 NW1/4) OF SECTION 27 AND THE SOUTHEAST CORNER OF THE NORTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER (NW1/4 SW1/4) OF SAID SECTION 27, TOWNSHIP 12 SOUTH, RANGE 65 WEST, MONUMENTED AT THE NORTHERLY END BY A 3-1/4" ALUMINUM CAP STAMED "2006 ESI PLS 10376" AND MONUMENTED AT THE SOUTHERLY END BY A 3-1/4" ALUMINUM CAP STAMPED "2006 ESI PLS 10376" AND IS ASSUMED TO BEAR S00°54'30"E, A DISTANCE OF 3925.63 FEET;

COMMENCING AT THE NORTHEAST CORNER OF THE NORTHWEST ONE-QUARTER OF THE NORTHWEST ONE-QUARTER (NW1/4 NW1/4) OF SECTION 27, SAID POINT ALSO BEING THE POINT OF BEGINNING OF THE PARCEL OF LAND HEREIN DESCRIBED;

THENCE S00°54'30"E ALONG THE EAST LINE OF THE WEST ONE-HALF (W1/2) OF SAID SECTION 27, A DISTANCE OF 3925.63 FEET TO THE SOUTHEAST CORNER OF THE NORTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER (NW1/4 SW1/4) OF SAID SECTION 27;

THENCE S87°35'00"W ALONG THE SOUTH LINE OF SAID NORTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER (NW1/4 SW1/4), A DISTANCE OF 1332.78 FEET TO THE SOUTHWEST CORNER OF SAID NORTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER (NW1/4 SW1/4);

THENCE N00°53'18"W ALONG THE WEST LINE OF SAID NORTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER (NW1/4 SW1/4), A DISTANCE OF 1316.78 FEET TO THE NORTHWEST CORNER OF SAID NORTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER (NW1/4 SW1/4);

THENCE S89°08'28"W ALONG THE SOUTH LINE OF THE SOUTHEAST ONE-QUARTER OF THE NORTHEAST ONE-QUARTER (SE1/4 NE1/4) OF SECTION 28, A DISTANCE OF 1326.68 FEET TO THE SOUTHWEST CORNER OF SAID SOUTHEAST ONE-QUARTER OF THE NORTHEAST ONE-QUARTER (SE1/4 NE1/4);

THENCE N00°30'49"W ALONG THE WEST LINE OF SAID SOUTHEAST ONE-QUARTER OF THE NORTHEAST ONE-QUARTER (SE1/4 NE1/4), A DISTANCE OF 1270.77 FEET TO A POINT ON THE EASTERLY RIGHT-OF-WAY LINE AS DESCRIBED IN THE DEED, AS RECORDED IN

BOOK 2678 AT PAGE 430 OF THE RECORDS OF THE EL PASO COUNTY CLERK AND RECORDER;

THENCE N21°41'10"E ALONG SAID EASTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 1450.84 FEET TO THE POINT OF INTERSECTION OF THE SOUTHERLY RIGHT-OF-WAY LINE AS DESCRIBED IN THE DEED, AS RECORDED IN BOOK 2678 AT PAGE 431 OF SAID COUNTY RECORDS;

THENCE ALONG THE SOUTHERLY AND EASTERLY RIGHT-OF-WAY LINES OF SAID DEED THE FOLLOWING TWO (2) COURSES:

1. N89°40'23"E, A DISTANCE OF 761.52 FEET TO A POINT ON THE EAST LINE OF SAID NORTHEAST ONE-QUARTER OF THE NORTHEAST ONE-QUARTER (NE1/4 NE1/4);
2. N00°52'58"W ALONG SAID EAST LINE, A DISTANCE OF 30.00 FEET TO THE NORTHWEST CORNER OF SAID SECTION 27;

THENCE N88°38'56"E ALONG THE NORTH LINE OF SAID NORTHWEST ONE-QUARTER OF THE NORTHWEST ONE-QUARTER (NW1/4 NW1/4), A DISTANCE OF 1330.91 FEET TO THE POINT OF BEGINNING;

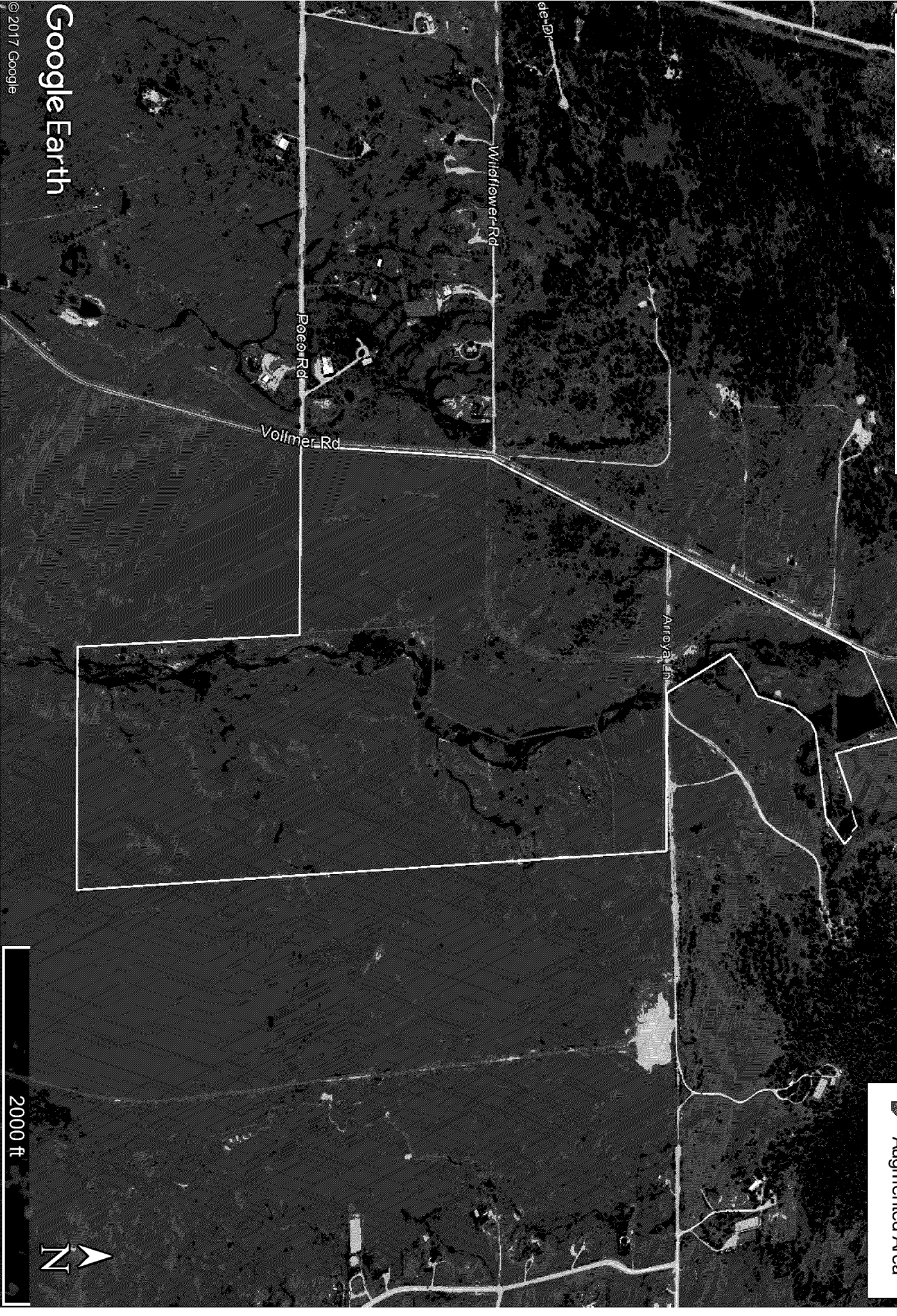
SAID PARCEL OF LAND CONTAINS A CALCULATED AREA OF 190.89 ACRES OF LAND, MORE OR LESS.

Arroya Augmentation Plan

Exhibit B: Applicant's Property and Augmented Area

Legend

-  Arroya Parcel
-  Augmented Area



2000 ft

DISTRICT COURT, WATER DIVISION 2, COLORADO Court Address: 501 North Elizabeth Street, Suite 116 Pueblo, CO 81003 Phone Number: (719) 404-8832	DATE FILED: March 4, 2022 10:52 AM CASE NUMBER: 2020CW3059
CONCERNING THE APPLICATION FOR WATER RIGHTS OF: STERLING RANCH METROPOLITAN DISTRICT NO. 1 IN EL PASO COUNTY	<p style="text-align: center;">▲ COURT USE ONLY ▲</p> <hr/> Case No.: 20CW3059
<p style="text-align: center;">FINDINGS OF FACT, CONCLUSIONS OF LAW, AMENDED RULING OF REFEREE AND DECREE: ADJUDICATING DENVER BASIN GROUNDWATER, WATER STORAGE RIGHTS AND APPROVAL OF PLAN FOR AUGMENTATION</p>	

THIS MATTER comes before the Court on the Application filed by Sterling Ranch Metropolitan District No. 1, and having reviewed said Application and other pleadings on file, and being fully advised on this matter, the Court makes the following findings and orders:

GENERAL FINDINGS OF FACT

1. The applicant in this case is Sterling Ranch Metropolitan District No. 1, whose address is 20 Boulder Crescent, #200, Colorado Springs, Colorado 80903 (“Applicant” or “District”). The Applicant seeks the adjudication of surface water rights, groundwater rights, and approval of a plan for augmentation.

2. The land upon which the surface water rights adjudicated herein are located are within the District, and the District is the owner of, or controls, all Denver Basin groundwater described herein. All land is located within the District, where the water will be put to beneficial use.

3. The Applicant filed this Application with the Water Court for Water Division 2 on October 12, 2020, and filed an Amended Application on October 13, 2020. The Application was referred to the Water Referee Division 2 on October 12, 2020.

4. The time for filing statements of opposition to the Application expired on the last day of December 2020. A Statement of Opposition was timely filed by The City of Colorado Springs, acting through its enterprise, Colorado Springs Utilities, on December 28, 2020, and a Statement of Opposition was timely filed by the State Engineer and the

Division Engineer for Water Division No. 2 on December 30, 2020.

5. On October 21, 2020, Water Court, Division 2, ordered that publication occur in El Paso County. The Clerk of this Court has caused publication of the Application filed in this matter as provided by statute and the publication costs have been paid. On November 19, 2020, proof of publication in *The Colorado Springs Gazette* was filed with the Division 2 Water Court. All notices of the Application have been given in the manner required by law.

6. On January 19, 2022, a stipulation between the Applicant and The City of Colorado Springs, acting through its enterprise, Colorado Springs Utilities was filed with the Division 2 Water Court. By Order dated January 24, 2022, the Division 2 Water Court approved such stipulation.

7. On November 5, 2021, a stipulation between the Applicant and the State Engineer and the Division Engineer for Water Division No. 2 was filed with the Division 2 Water Court. By Order dated November 5, 2021, the Division 2 Water Court approved such stipulation.

8. Pursuant to C.R.S. §37-92-302(2), the Office of the State Engineer has filed Determination of Facts for each aquifer with this Court on January 29, 2021.

9. As the State and Division Engineers timely filed a statement of opposition in this matter and obtained party status, no Consultation Report pursuant to C.R.S. §37-92-302(4) is necessary or required.

10. The Water Court has jurisdiction over the subject matter of these proceedings and over all who have standing to appear as parties whether they have appeared or not. The land and water rights involved in this case are not within a designated groundwater basin.

SURFACE WATER STORAGE RIGHTS

11. The Applicant seeks the adjudication of absolute surface water storage rights and the following findings are made with respect those rights:

A. Name of Structure: SRMD Pond No. 1. The terms of this decree concerning SRMD Pond No. 1 abrogate and replace all uses, terms, and conditions of prior decree of this Court in Case No. W-1309 as concerns the like structure decreed therein as Dines Reservoir No. 1, with the exception of claimed appropriation date for stockwater uses.

i. Legal Description of Structure: SRMD Pond No. 1 is located in the NE $\frac{1}{4}$ SW $\frac{1}{4}$ and the NW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 33, Township 12 South, Range 65 West of the 6th P.M. with the center of the embankment at a point approximately 1,450 feet from the south section line of said Section 33, and approximately 2,590 feet from the east

section line of said Section 33, in El Paso County, Colorado.

ii. Source: The source for filling and re-filling of this existing on-channel structure is Sand Creek, a tributary of Fountain Creek, tributary to the Arkansas River.

iii. Date and Initiation of Appropriation: This water right shall be administered with a priority date of October 13, 2020, coincident with the filing of this Application. A stock tank in this location was decreed by the Division 2 Water Court in 1973, Case No. W-1309 as Dines Reservoir No. 1. However, Applicant's uses are far more expansive than those considered in W-1309, and Applicant therefore does not claim the earlier September 24, 1962 appropriation date decreed therein, except as to stockwater uses for purposes of demonstrating in-priority storage of water in support of Applicant's absolute claim for such uses.

iv. Date Water Applied to Beneficial Use: SRMD Pond No. 1 has existed since at least September 24, 1962, per the decree in W-1309.

v. Amount Claimed: 12.25 acre feet, with the right to freshening flows for maintenance of recreational, wildlife, fish propagation and fire protection purposes when in priority or when augmented by the plan approved herein. Since the initial construction of SRMD Pond No. 1 in 1962, there have been a number of instances where the Arkansas River call (and Sand Creek and Fountain Creek, as tributaries thereto), has been junior to the priority date of September 24, 1962 decreed to stockwater uses for this facility in W-1309, including in 1999. Each of these circumstances of in-priority storage occurred for decreed stockwatering purposes, supporting the absolute water rights decreed herein in the amount of 12.25 acre feet for such stockwater uses. All other municipal uses, including domestic, commercial, industrial, recreation, fish propagation, wetlands, wildlife habitat, and fire protection purposes decreed herein are conditional, in the amount of 12.25 acre feet.

vi. Uses: All municipal uses, including domestic, commercial, industrial, recreation, fish propagation, stockwater, wetlands, wildlife habitat, and fire protection purposes.

vii. Pond Specifications: SRMD Pond No. 1 has a maximum surface area at the high-water line of approximately 2.51 acres. The maximum height of the dam is approximately 10 feet and the length of the dam is approximately 510 feet.

viii. Total Capacity of Pond: Approximately 12.25 acre feet, all of which is dead storage.

ix. Place of Use: All uses of water associated with SRMD Pond No. 1 shall be within the boundaries of the District.

B. Name of Structure: SRMD Pond No. 2. The terms of this decree

concerning SRMD Pond No. 2 abrogate and replace all the uses, terms, and conditions of prior decree of this Court in Case No. W-1309 as concerns the like structure decreed therein as Dines Reservoir No. 3, with the exception of appropriation date for stockwater uses.

i. Legal Description of Structure: SRMD Pond No. 2 is located in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 28, Township 12 South, Range 65 West of the 6th P.M. at a point approximately 115 feet from the south section line of said Section 28, and approximately 156 feet from the east section line of said Section 28, in El Paso County, Colorado.

ii. Source: The source for filling and re-filling of this existing on-channel structure is Sand Creek, a tributary of Fountain Creek, tributary to the Arkansas River.

iii. Date and Initiation of Appropriation: This water right shall be administered with a priority date of October 13, 2020, coincident with the filing of this Application. A stock tank in this location was decreed by the Division 2 Water Court in 1973, Case No. W-1309 as Dines Reservoir No. 3. However, Applicant's uses are far more expansive than those considered in W-1309, and Applicant therefore does not claim the earlier September 24, 1962 appropriation date decreed therein, except as to stockwater uses for purposes of demonstrating in-priority storage of water in support of Applicant's absolute claim for such uses.

iv. Date Water Applied to Beneficial Use: The pond has existed since at least October 4, 1962, per the decree in W-1309.

v. Amount Claimed: 4.29 acre feet, with the right freshening flows for maintenance of recreational, wildlife, fish propagation and fire protection purposes when in priority or when augmented by the plan approved herein. Since the initial construction of SRMD Pond No. 1 in 1962, there have been a number of instances where the Arkansas River call (and Sand Creek and Fountain Creek, as tributaries thereto), has been junior to the priority date of September 24, 1962 decreed to stockwater uses for this facility in W-1309, including in 1999. Each of these circumstances in-priority storage occurred for decreed stockwatering purposes, supporting the absolute water rights decreed herein in the amount of 4.29 acre feet for such stockwater uses. All other municipal uses, including domestic, commercial, industrial, recreation, fish propagation, wetlands, wildlife habitat, and fire protection purposes decreed herein are conditional, in the amount of 4.29 acre feed acre feet.

vi. Uses: All municipal uses, domestic, commercial, industrial, recreation, fish propagation, stockwater, wetlands, wildlife habitat, and fire protection purposes.

vii. Pond Specifications: SRMD Pond No. 2 has a maximum surface area at the high-water line of approximately 1.30 acres. The maximum height of

the dam is approximately 10 feet and the length of the dam is approximately 155 feet.

viii. Total Capacity of Pond: Approximately 4.29 acre feet, all of which is dead storage.

ix. Place of Use: All uses of water associated with SRMD Pond No. 2 will be within the boundaries of the District.

12. The Court finds the absolute surface water storage rights decreed herein have been fully developed and the Applicant has utilized the water rights in-priority for stock-watering beneficial uses, as requested in the application. The Court further finds that the Applicant has completed all of the elements for the appropriation of the absolute water right, as to such stockwater uses, including: (a) formation of the intent to appropriate water; (b) performance of overt acts coincidental with this intent to manifest the intention to appropriate water to beneficial use and to demonstrate the taking of a substantial step toward applying water to beneficial use; (c) these acts were of such a nature as to provide interested third parties with notice of the nature and extent of the proposed diversion and the consequent demand upon the river system water to beneficial use; and as to the absolute water rights for stockwater purposes, (d) unappropriated waters have been diverted and have been applied to the beneficial use set forth herein. Applicant's documented in-priority fill and beneficial use of water stored within SRMD Pond Nos. 1 and 2 for stock-watering purposes is sufficient for creation of an absolute water right. The appropriation dates of the conditional water rights decreed herein establishes such water rights' relative priority among all other water rights or conditional water rights awarded on applications filed in Water Division 2 in the original years of filing for such conditional water rights, but such conditional water right shall be junior to all water rights and conditional water rights awarded on applications filed in previous calendar years.

GROUNDWATER RIGHTS

13. The Applicant requested quantification and adjudication of underground Denver Basin water rights, including as associated with an existing well with Permit No. 26947-F, as constructed to the Denver aquifer, and for an undetermined quantity of additional or replacement wells to one or more of the Denver Basin aquifers, as quantified herein, for withdrawal of Applicant's full entitlement of water supplies underlying the SR Quarry Parcel, as more particularly described on the attached **Exhibit A** and depicted on the **Exhibit B1** map, pursuant to the plan for augmentation decreed herein. Applicant also sought, and this Court decrees that, to the extent wells or well fields constructed on nearby property owned or controlled by Applicant and its affiliates have or are legally interpreted to have contiguity, Applicant shall have the right to withdraw all groundwater entitlements quantified herein from such contiguous wells and be considered a well field. The following findings are made with respect to such groundwater rights:

14. The land overlying the groundwater subject to the adjudication in this case is owned by the Applicant and consists of approximately 97.54 acres located in the S $\frac{1}{2}$ SW $\frac{1}{4}$ and the SW $\frac{1}{4}$ SE $\frac{1}{4}$ in Township 12 South, Range 65 West of the 6th P.M., El Paso

County, Colorado, described as the SR Quarry Parcel, and depicted on the attached **Exhibit B1** map (“SR Quarry Parcel”). All groundwater adjudicated herein shall be withdrawn from the overlying land, or from a contiguous parcel owned or controlled by the Applicant and its affiliates.

15. In accordance with the notice requirements of C.R.S. §37-92-302, lienholders of the SR Quarry Parcel were sent a Letter of Notice dated November 30, 2020. A Certificate of Notice was filed with the District Court, Water Division 2, on December 22, 2020.

16. Existing and Future Wells. All wells will be located on the SR Quarry Parcel, and/or on contiguous parcels thereto. There is an existing well on the property permitted and constructed under Well Permit No. 26947-F constructed to the Denver aquifer. Applicant is awarded the vested right to use the existing well and future wells, along with any necessary additional or replacement wells associated with such structures, for the extraction and use of groundwater from the not-nontributary Denver and Arapahoe aquifers pursuant to the Plan for Augmentation decreed herein. Upon entry of this decree and submittal by the Applicant of a complete well permit application and filing fee, the State Engineer shall issue a revised permit for the existing well, and new permits for any future well pursuant to C.R.S. §37-90-137(4), consistent with and referencing the Plan for Augmentation decreed herein.

17. Of the statutorily described Denver Basin aquifers, the Dawson, Denver, Arapahoe, and Laramie-Fox Hills aquifers all exist beneath the SR Quarry Parcel. The Dawson, Denver, and Arapahoe aquifers underlying the SR Quarry Parcel contain not-nontributary water, while the water of the Laramie-Fox Hills aquifer underlying the SR Quarry Parcel is nontributary. The quantity of water in the Denver Basin aquifers exclusive of artificial recharge underlying the SR Quarry Parcel is as follows:

AQUIFER	NET SAND (ft)	Annual Average Withdrawal 100 Years (Acre Feet)	Annual Average Withdrawal 300 Years (Acre Feet)	Total Withdrawal (Acre Feet)
Dawson (NNT)	50	9.75	3.25	975
Denver (NNT)	300	45.56 ^{1,2}	15.19 ²	4,556 ²
Arapahoe (NNT)	260	43.11	14.37	4,311
Laramie-Fox Hills (NT)	190	27.8	9.27	2,780

¹ Consistent with the State Engineer’s Determination of Facts, this entire amount requires the existing well with Permit No. 26947-F to be re-permitted upon entry of this decree, as anticipated. If the well is not re-permitted, the average annual amount shall be reduced to 0 acre-feet.

² Applicant’s consultants have estimated the maximum uses of the well with existing Permit No. 26947-F since it was first placed to beneficial use in 1989 as 13.1 acre feet annually, though it is highly unlikely that such maximum pumping actually occurred in each of the past 32 years. Nonetheless, Applicant has conservatively estimated that a total of 419 acre feet has been pumped thereby, and therefore the quantity of water claimed in the Denver aquifer in this decree has been reduced by such amounts.

18. Pursuant to C.R.S. §37-90-137(9)(c.5)(I)(B), the augmentation requirements for wells in the Dawson aquifer underlying the SR Quarry Parcel requires the replacement to the affected stream systems of actual stream depletions on an annual basis. Pursuant to C.R.S. §37-90-137(9)(c.5)(I)(C), the water of the Denver and Arapahoe aquifers underlying the SR Quarry Parcel, which are located greater than 1 mile from any point of contact between a natural stream, requires replacement to the affected stream system of four percent (4%) of the amount of the water withdrawn from those aquifers on an annual basis. The Applicant shall not be entitled to construct a well or use water from the not-nontributary Dawson, Denver, or Arapahoe aquifers except pursuant to an approved augmentation plan in accordance with C.R.S. §37-90-137(9)(c.5), including as decreed herein as concerns the Denver and Arapahoe aquifers.

19. Subject to the augmentation requirements described in Paragraph 18 and the other requirements and limitations in this decree, Applicant shall be entitled to withdraw all legally available groundwater in the Denver Basin aquifers underlying the SR Quarry Parcel. Said amounts can be withdrawn over the 100-year life for the aquifers as set forth in C.R.S. §37-90-137(4), or withdrawn over a longer period of time based upon local governmental regulations or Applicant's water needs provided withdrawals during such longer period are in compliance with the augmentation requirements of this decree. This decree is based upon a pumping period of 300-years as required by El Paso County, Colorado Land Development Code §8.4.7(C)(1). The average annual amounts of groundwater available for withdrawal from the underlying Denver Basin aquifers, based upon a 300-year aquifer life, are determined and set forth above, based upon the January 29, 2021 Office of the State Engineer Determination of Facts described in Paragraph 8.

20. Applicant shall be entitled to withdraw an amount of groundwater in excess of the average annual amount decreed herein from the Denver Basin aquifers underlying the SR Quarry Parcel for a 300-year aquifer life, so long as the sum of the total withdrawals from wells in each of the aquifers does not exceed the product of the number of years since the date of entry of the decree herein, and the average annual volume of water which Applicant is entitled to withdraw from each of the aquifers underlying the SR Quarry Parcel, subject to the requirement that such banking and excess withdrawals do not violate the terms and conditions of the plan for augmentation decreed herein and any other plan for augmentation decreed by the Court that authorizes withdrawal of the Denver Basin groundwater adjudicated and decreed herein.

21. Subject to the terms and conditions of the plan for augmentation decreed herein and final approval by the State Engineer's Office pursuant to the issuance of well permits in accordance with C.R.S. §§37-90-137(4) or 37-90-137(10), the Applicant shall have the right to use the groundwater for beneficial municipal uses including, without limitation, domestic, commercial, industrial, irrigation of any irrigable acreage within the District boundaries or District service area, stock water, recreation, fish and wildlife propagation, fire protection, central water supply for such uses and also for exchange, aquifer recharge, replacement, and augmentation purposes. The amount of groundwater decreed for such uses is reasonable as such uses are to be made for the long-term use

and enjoyment of those served by Applicant and is to establish and provide for adequate water reserves. The nontributary groundwater in the Laramie-Fox Hills aquifer underlying the SR Quarry Parcel may be used, reused, and successively used to extinction, both on and off the SR Quarry Parcel subject, however, to the requirement under C.R.S. §37-90-137(9)(b) that no more than 98% of the amount withdrawn annually shall be consumed. Applicant may use such water by immediate application or by storage and subsequent application to the beneficial uses and purposes stated herein. Provided, however, as set forth above, Applicant shall only be entitled to construct a well or use water from the nontributary Dawson, Denver, and Arapahoe aquifers pursuant to a decreed augmentation plan entered by the Court, including that plan for augmentation decreed herein concerning the Denver and Arapahoe aquifers.

22. Withdrawals of groundwater available from the nontributary Laramie-Fox Hills aquifer beneath the SR Quarry Parcel in the amount determined in accordance with the provisions of this decree will not result in injury to any other vested water rights or to any other owners or users of water.

PLAN FOR AUGMENTATION

23. The structures to be augmented are the existing and future wells as constructed and to be constructed to the not-nontributary Denver and Arapahoe aquifers within the boundaries of the District or contiguous thereto and available to the District and the decree entered in Case No. 08CW113, as well as out-of-priority storage and evaporative depletions associated with the SRMD Pond Nos. 1 and 2.

24. Applicant is hereby decreed a plan for augmentation for out-of-priority depletions associated with the SRMD Pond Nos. 1 and 2, and for the withdrawal of not-nontributary Denver Basin groundwater rights in the Denver and Arapahoe aquifers, respectively, underlying property owned and controlled by the Applicant and affiliates Sterling Ranch Metropolitan District Nos. 2 and 3 as previously decreed in Case No. 08CW113, and underlying the SR Quarry Parcel as decreed herein, to support development of land served by the District, more particularly described on the attached **Exhibit A**, and depicted on the attached **Exhibit B1** and **B2** maps. During the pumping life of wells to the Denver and Arapahoe aquifers described above, it is anticipated that any out-of-priority depletions will be replaced by Lawn Irrigation Return Flows (“LIRFs”) resulting from the irrigation of approximately 48 acres of parks and common areas, supplemented by pumping of decreed nontributary water supplies from the Arapahoe and/or Laramie-Fox Hills aquifers underlying the District and its affiliates, as decreed to Applicant’s use in Case Nos. 86CW18, 86CW19 and 08CW113, including from existing SRMD wells. Applicant shall utilize a portion of the nontributary Denver Basin groundwater underlying property outside of the District (“Bar X Parcel”) as decreed in Case No. 93CW18 and 93CW19 by the Division 1 Water Court, which amended prior Case No. 85CW445, for replacement of any injurious post-pumping depletions.

25. SRMD Pond Nos. 1 and 2, with a total maximum surface area of 3.81 acres, have been calculated by Applicant’s consultants to result in maximum annual evaporative

losses of 10.58 acre feet assuming such ponds are maintained at full stage, resulting in a like depletion to Sand Creek, a tributary of Fountain Creek, tributary to the Arkansas River. As described below, Applicant will replace this 10.58 acre foot annual depletion through dedicated LIRFs accruing to Sand Creek in the vicinity of the District, as depicted on the **Exhibit B2** Map, or by pumping of the decreed nontributary supplies decreed in Case Nos. 86CW19 and 08CW113, including from existing SRMD wells. Applicant asserts, and this Court accepts as reasonable, that the SRMD Pond Nos. 1 and 2 were filled in priority in 1999, and have been maintained at full stage since such in-priority fill. Should the SRMD Pond Nos. 1 and 2 be fully or partially drained at any point in the future and thus require partial or complete refill, and should such re-fill be unavailable in priority, Applicant shall augment any such out-of-priority storage and refill of SRMD Pond Nos. 1 and 2 utilizing reusable LIRF credits accruing to Sand Creek and in excess of those required to replace depletions from the pumping of the not-nontributary wells described herein, and in excess of those required to replace evaporative depletions (including from less than full-stage storage), or by pumping of decreed nontributary water supplies from the Arapahoe and/or Laramie-Fox Hills aquifers underlying the District and its affiliates, as decreed to Applicant's use in Case Nos. 86CW18, 86CW19 and 08CW113, including from existing SRMD wells up to a maximum of 16.54 acre feet, being the total combined capacity of both SRMD Pond Nos. 1 and 2.

26. The not-nontributary Denver Basin groundwater underlying the property owned by the District and its affiliates that is available for withdrawal in accordance with this plan for augmentation was previously adjudicated and quantified by the Division 2 Water Court in Case No. 08CW113 as follows:

Aquifer	Annual Average Withdrawal (Acre-Feet)³
Denver (NNT)	242.97
Arapahoe (NNT)	0.20

As quantified and determined herein, the SR Quarry Parcel has the following additional not-nontributary groundwater that is available for withdrawal in accordance plan for augmentation:

Aquifer	Annual Average Withdrawal (Acre-Feet)²
Denver (NNT)	15.19

³ This represents the annually estimated available quantity of water for a 300-year pumping life, as required by El Paso County Land Development Code.

Arapahoe (NNT)	14.37
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Depletions from the pumping of the not-nontributary Denver and Arapahoe aquifer water described above are equal to 4% of pumping, a maximum of 10.91 annual acre feet.

27. All existing exempt permitted wells to the Denver and Arapahoe aquifers, if any, shall be either re-permitted as augmented structures under the plan for augmentation decreed herein, or abandoned, consistent with the rules and regulations of the State and Division Engineers. Applicant is hereby granted pursuant to the terms and conditions of the augmentation plan decreed herein, the right to withdraw all quantities of not-nontributary Denver Basin groundwater in the Denver and Arapahoe aquifers underlying the SR Quarry Parcel, and underlying the District and its affiliates as described above, through existing, additional or replacement wells located on the subject properties or upon contiguous properties, consistent with Rule 11.A. of the Statewide Nontributary Ground Water Rules, provided Applicant first acquires such interests in the overlying land as may be necessary for construction, maintenance and operation of any such wells, and infrastructure related thereto. Applicant expressly may withdraw the not-nontributary groundwater underlying the SR Quarry Parcel from any and all wells, both existing and as may in the future be developed, available to Applicant on said parcel or other contiguous properties upon which the District has wells and infrastructure to each of the Denver and Arapahoe aquifers, respectively.

28. Water Rights to be Used for Augmentation.

A. Depletions During Pumping. During the pumping life of the not-nontributary wells described herein, any out-of-priority depletions caused by the pumping of the wells, as well as evaporative depletions from the SRMD Pond Nos. 1 and 2 described herein and located on-channel on Sand Creek with total surface area of approximately 3.81 acres, will be augmented by LIRFs unless and until such a time as the District has reusable treated effluent credits available in proper time, place and amount, and unless such LIRFs are insufficient to fully replace actual out-of-priority depletions. Maximum pumping of the not-nontributary aquifers described herein, in combination, shall be 272.73 acre feet over the pumping life of the wells. If at any time LIRFs prove insufficient to replace out-of-priority depletions, Applicant shall utilize decreed nontributary water supplies from the Arapahoe and/or Laramie-Fox Hills aquifers underlying the District and its affiliates, as decreed to Applicant's use in Case Nos. 86CW18, 86CW19 and 08CW113, including from existing SRMD wells. Applicant's LIRFs will accrue to Sand Creek as a result of irrigation uses throughout the District. Maximum evaporative depletions from SRMD Pond Nos. 1 and 2 are 10.58 acre feet annually, and

maximum depletions from the pumping of the not-nontributary Denver and Arapahoe aquifer wells within the District are 4% of pumping, or 10.91 annual acre feet, for total approximate annual depletions of 21.49 acre feet that are to be replaced under the plan for augmentation decreed herein, plus any out-of-priority storage within SRMD Pond Nos. 1 and 2, as described in Paragraph 25, above. As described in Paragraph 30, below, LIRFs resulting from irrigation within the District’s service area will result in up to 27.45 annual acre feet of reusable return flow credits to Sand Creek, though Applicant will be limited to 17.65 annual acre feet of LIRF credits for such augmentation uses unless and until Applicant is awarded a right to additional LIRF credits utilizing the process identified in Paragraph 30, below.

B. Post Pumping Depletions. The water rights to be used for augmentation of any injurious post-pumping depletions occurring after the anticipated 300-year pumping life of the wells resulting from the pumping of the not-nontributary groundwater described in this plan for augmentation are a portion of the nontributary Denver Basin groundwater rights underlying the Bar X Parcel, as decreed in Case Nos. 93CW18 and 93CW19 by the Division 1 Water Court, which amended prior Case No. 85CW445 as owned and controlled by the District:

Aquifer	Total Allocation (AF)
Denver (NT)	136,000
Arapahoe (NT)	81,300
Laramie-Fox Hills (NT)	42,700
BAR X TOTAL:	260,000

i. Maximum post-pumping depletions resulting from the pumping of the not-nontributary Denver and Arapahoe aquifers underlying the lands owned and controlled by the District and its affiliates, including the SR Quarry Parcel, as described herein, should not exceed 258.13 annual acre-feet from the not-nontributary Denver Aquifer, and 14.60 annual acre-feet from the not-nontributary Arapahoe aquifer over 300-years of pumping, a total of 272.73 annual acre feet in combination. To replace any injurious post-pumping depletions Applicant shall dedicate 82,167 acre-feet, equivalent to an average of 272.73 acre feet annually based on 300-years of pumping, from the nontributary Denver aquifer underlying the Bar X Parcel, owned or controlled by SRMD and its affiliates, less the amount of actual stream depletions replaced hereunder during the plan pumping period. Applicant’s consultant estimates that a total of 1,978.12 acre-feet of lawn irrigation return flows will replace stream depletions over the 300-year pumping period. The total 82,167 acre feet of reserved post-pumping replacement water, less the amount of actual stream depletions replaced during the plan pumping period, will be sufficient to replace all calculated injurious post-pumping depletions. Applicant’s dedication and reservation of up to 82,167 acre feet annually of nontributary Denver aquifer groundwater, being a portion of the Bar X water previously adjudicated in Case No. 93CW18, will provide this maximum post-pumping augmentation supply. The total reserved nontributary groundwater supply, less the amount of actual stream depletions replaced during the plan pumping period, is sufficient to replace all estimated injurious

post-pumping depletions.

29. Augmentation of Evaporative and Out-of-Priority Storage Depletions. Applicant’s consultants have calculated, and the Court accepts such calculations as reasonable, that net evaporative depletions of the combined maximum surface areas of the SRMD Ponds Nos. 1 and 2, being approximately 3.81 surface acres, will be 46.5 inches. The equations upon which Applicant’s consultants have relied upon for calculating evaporative depletions and out-of-priority storage, are more particularly described in Paragraph 29.A., below. Therefore, the SRMD Ponds Nos. 1 and 2 will have combined evaporative depletions of approximately 10.58 annual acre-feet. Evaporative depletions resulting from the SRMD Ponds Nos. 1 and 2 will be augmented by: (1) excess LIRF credits, or (2) pumping from the nontributary Arapahoe and/or Laramie-Fox Hills aquifers underlying the District and its affiliates, as decreed to Applicant’s use in Case Nos. 86CW18, 86CW19 and 08CW113, including from existing SRMD wells, as described above.

A. Depletion/Evaporation Formulas:

i. Gross Evaporation at the SRMD Ponds No. 1 and No. 2 = 46.5 inches (per NOAA Plate No. 33 in Colorado)

ii. Monthly Gross Evaporation = (46.5"/12) * (Monthly Evap. Percentage)

iii. Monthly Evaporation Percentage Table from Colorado Division of Water Resources:

<u>Month</u>	<u>Percentage</u>
January	1.0%
February	3.0 %
March	6.0 %
April	9.0 %
May	12.5 %
June	15.5 %
July	16.0 %
August	13.0 %
September	11.0 %
October	7.5 %
November	4.0 %
December	1.5 %

iv. Monthly Gross Precipitation (inches) = Black Forest WNW Weather Station No. 6

v. Monthly Effective Precipitation (feet) = (Monthly Gross Precipitation) * 70 % / 12

vi. Net Monthly Pond Evaporation = ((Monthly Gross Evap.) * (Monthly %)) – (Effective Precipitation)

vii. Monthly Total Lake Evaporation = (Monthly Net Lake Evaporation) * (Total Surface Area of Ponds) (Note: Total Surface Area of ponds are assumed to be full at 3.81 Acres)

B. Out-of-Priority Storage: The method to accurately obtain monthly out-of-priority storage volumes for the two ponds is as follows:

i. Stage capacity curves for ponds, as constructed, are attached to this Decree collectively as **Exhibit D**.

ii. Prior to storage of water and administration of the augmentation plan decreed herein, a staff gauge shall be installed in each of the ponds with increments sufficient to monument the staff gauge to the stage capacity curves described in **Exhibit D**.

iii. Using the daily accounting summary for Case No. 20CW3059 daily readings of the SRMD Pond No. 1 and No. 2 staff gauges can be recorded with associated pond volumes documented in Acre-Feet to determine out-of-priority storage. Any positive differences in the pond storage can be documented in the daily data entry form as out-of-priority storage that must be augmented hereunder.

C. LIRF Credits. LIRF credits resulting from irrigation of parks and common areas throughout the District, anticipated to be approximately 48 acres, are anticipated to be available in excess of that required for augmentation of the non-tributary Denver and Arapahoe aquifer wells described herein, as further described in Paragraph 30, below. Applicant shall likewise utilize such LIRF credits to offset and augment all or part of the estimated 10.58 annual acre feet of evaporative depletions associated with SRMD Pond Nos. 1 and 2, supplemented with nontributary water supplies from the Arapahoe and/or Laramie-Fox Hills aquifers underlying the District and its affiliates, as decreed to Applicant's use in Case Nos. 86CW18, 86CW19 and 08CW113, including from existing SRMD wells, as described below.

D. Nontributary Groundwater. In the alternative, and at all times when LIRF credits are insufficient to offset and augment the out-of-priority depletions described herein, including until such time as Applicant has constructed all of the approximately 48 acres of irrigated parks and common areas from which LIRF credits will ultimately accrue, Applicant shall pump to the stream such quantities of nontributary groundwater as necessary to fully augment evaporative depletions associated with SRMD Pond Nos. 1 and 2, estimated to be a maximum of 10.58 annual acre feet, not otherwise augmented through excess LIRF credits. The nontributary Laramie-Fox Hills aquifer underlying approximately 1,410 acres of the District was quantified in Case No. 86CW19 by the Division 2 Water Court, while the nontributary Laramie-Fox Hills aquifer underlying the

remaining 41.44 acres of the District was quantified in Case No. 08CW113, Water Division 2. Nontributary groundwater in the Arapahoe aquifer was primarily quantified in Case No. 86CW18, Water Division 1, with a 4 acre-foot portion quantified in Case No. 08CW113, Water Division 2. Such adjudications provide for the combined annual withdrawals of nontributary groundwater well in excess of any depletions created through the use and maintenance of SRMD Pond Nos. 1 and 2, and such groundwater was previously adjudicated for all municipal uses, expressly including augmentation. Such groundwater will be pumped to Sand Creek in times and volumes necessary to prevent injury to other vested water rights users, at or above the point on Sand Creek depicted on the **Exhibit B2** Map. Prior to operation of the augmentation plan decreed herein, Applicant shall design and install infrastructure sufficient to allow Applicant, as contemplated in paragraph 30(L) herein, to deliver non-tributary Denver Basin Groundwater to Sand Creek at a point at or above the point depicted on Exhibit B2.

30. Quantification of Reusable LIRFs. Water use within the District's boundaries will include use for outdoor purposes, including irrigation of lawns, landscaping, open space, medians, and similar (*i.e.* parks and common areas). A portion of the water used for outdoor purposes, being reusable LIRFs, will return to the Sand Creek stream system unconsumed, and is therefore available to replace evaporative and well pumping depletions from the structures described herein. The District's consultants conducted a study of anticipated water uses within the District using water use data, climate data, anticipated irrigated acreages, irrigation requirements, and projected tree canopy areas in order to determine total annual LIRFs as a percentage of total annual outdoor water use. The location, amount, and timing of reusable LIRFs available for use by the District from outdoor water use shall be determined using the procedures described in this Paragraph 30.

A. As a baseline, the LIRFs available for use as an augmentation supply for purposes of this decree will be a minimum of 15% of the total amount of water applied for irrigation of parks and common areas within the District's current and future boundaries, which will accrue to Sand Creek, tributary to Fountain Creek, tributary to the Arkansas River, estimated at an average of 17.65 acre feet annually. Applicant shall not be entitled to claim greater than 15% of the total amount of water applied for irrigation of common areas and parks within the District as LIRF credits without first complying with all provisions of this Paragraph 30. The approximate location at or upstream of which all such LIRFs are anticipated to accrue is shown on the attached **Exhibit B2** map. However, the District's consultants' analysis determined that actual re-usable LIRFs are estimated to be an average of 26.14% of the total amount of water applied to outdoor use, with resulting return flows of 27.45 acre feet annually. The actual re-usable LIRFs will therefore amount to between 15% and 26.14% of total outdoor irrigation uses, based upon the relationship between deep percolation (expressed as a fraction of the amount of water applied) and the amount of water applied (expressed as a fraction of the potential consumptive use of lawn grass), referenced as the "Cottonwood Curve", and the methodology referred to as the "Cottonwood Methodology", first approved in Case No. 81CW142 in Water Division 1. The District has calculated the timing of the deep percolation portion of such reusable LIRFs to the Sand Creek stream system using the

Glover bounded alluvial aquifer equation. Applicant's consultants have estimated based upon zoning and land use plans developed by the District's landscape architects and approved by El Paso County, that approximately 48 acres of parks and common areas will be irrigated throughout the District, resulting in LIRFs calculated at approximately 17.65 to 27.45 acre feet annually, based on the percentages described above, and this Court determines this estimate to be reasonable. With maximum annual depletions from pumping of not-nontributary aquifers estimated at 10.91 acre feet (4% of a maximum of 272.73 annual acre feet of pumping), and evaporative depletions of the SRMD Ponds estimated at a maximum of 10.58 acre feet, for a total of 21.49 annual acre feet to be augmented, LIRFs available after construction and irrigation of approximately 48 acres of parks and common area may sufficiently augment evaporative depletions from the SRMD Ponds and well depletions during pumping, with any shortfall in LIRF supply being supplemented with pumping from the nontributary aquifers located within the District in an amount sufficient to replace any remaining depletions. To determine a final LIRF percentage upon buildout of areas upon which outdoor uses will be made (*i.e.* construction of the approximately 48 acres of parks and common areas from which LIRFs will accrue, and application of metered irrigation water supplies thereto), should the District wish to claim the minimum 15%, or a greater amount of reusable LIRFs, the District shall utilize the following procedures:

B. Total outdoor water use shall be determined on a monthly basis for the months of April through October of each year as the total amount of metered monthly deliveries to the parks and common areas. Prior to Utilizing LIRFs as an augmentation source, Applicant shall install meters capable of recording the amount of irrigation water provided to each park and/or common area from which LIRFs will accrue.

C. Reusable subsurface LIRFs from outdoor water use shall be preliminarily calculated as 15% of the total metered irrigation use for that month. The location of accretions to Sand Creek is the point where LIRFs are deemed to accrue to Sand Creek, as depicted on **Exhibit B2**.

D. The timing of accretion of such subsurface LIRFs to the alluvium has been determined by Applicant's consultants to be within 30 days, in light of local conditions and the proximity of irrigation to Sand Creek and its alluvium.

E. Prior to taking any credits for LIRFs in percentages greater than the baseline percentage of 15%, the District shall install a series of piezometers in consultation with the State Engineer's Office and complete a piezometer study, in order to document the presence, depth and calculated baseline quantities of the groundwater table, and verify the direction of groundwater flow.

F. To assure that the LIRFs are actually returning to the Sand Creek stream system, in order to take credits for LIRFs in percentages greater than the baseline percentage of 15%, the District shall demonstrate through piezometer measurements the existence of a water table with a hydraulic gradient toward the Sand Creek stream system, including its associated alluvium.

G. To document the quantity of LIRFs accruing to Sand Creek the District shall demonstrate through piezometer observations and measurements the increase in groundwater quantities resulting from LIRFs, and provide the State and Division Engineers, and any opposers in this matter requesting the same, an engineering analysis of such increased groundwater quantities, and calculation of the resulting appropriate LIRF percentage in an amount greater than the baseline 15%.

H. The following additional provisions shall apply to the piezometer study described above, necessary for the District to take credit for LIRFs in percentages greater than the baseline 15%:

i. The exact location of piezometers shall be determined by field observation jointly with the District's consultants and State Engineer staff and, prior to constructing any piezometers, the District shall notify the Division of Water Resources of the date and location when construction will occur to allow for observation, if desired. The contemplated location of piezometers is depicted on the attached **Exhibit B2**.

ii. The piezometer boreholes shall be logged under the supervision of a professional geologist or professional engineer and shall be sampled at not less than 5-foot intervals using a split-barrel sampler using the Standard Penetration Test, ASTM D1586. Written borehole logs shall be prepared that describe the subsurface materials at not less than 5-foot intervals, including a description of grain sizes and induration of sediments encountered during piezometer borehole construction.

iii. The total depth of unconsolidated materials overlying bedrock shall be identified for each piezometer borehole log. The top of bedrock shall be defined as the depth at which geologic materials are consolidated, or when the Standard Penetration Test results in a blow count greater than 29 blows to advance the split-barrel sampler the last 1 foot of the 1.5-foot Standard Penetration Test interval, whichever is shallower.

iv. Piezometer construction shall comply with the Colorado Water Well Construction Rules and shall consist of 2-inch PVC pipe with suitable perforations in the pipe and with a hole drilled in the bottom cap, and shall extend through the entire saturated thickness of the materials. The bottom of the piezometer shall be installed at the depth at which bedrock is encountered.

v. The elevation of the surface at, and the location of, each piezometer shall be determined by survey, and following piezometer construction, the depth to water shall be measured in the piezometers and reported to the Division of Water Resources and, upon request, to any other objector hereto. Piezometers shall be monitored and read on a monthly basis for a minimum period of 12 consecutive months (or longer, in the District's discretion), beginning upon the installation of the piezometer or the first measurement of a water table, and the piezometer water level shall be recorded in a monthly table of groundwater elevation and depth to groundwater.

vi. Piezometer Report. The District shall develop a report prepared by a professional geologist or professional engineer that presents all of the following information:

- a. Location of each piezometer;
- b. Borehole log and Standard Penetration Test for each piezometer location;
- c. Monthly water level measured in each piezometer for twelve (12) consecutive months;
- d. Average water level elevation in each piezometer;
- e. Map of average piezometer groundwater level elevation that demonstrates a groundwater gradient towards Sand Creek and its tributaries.

vii. Acceptance of Piezometer Report. If piezometer measurements for a continuous period of 12 months (or longer, in the District's discretion) demonstrate increases in the water table resulting from LIRFs in excess of the baseline 15% authorized by this decree, the District shall serve its Piezometer Report to the Division of Water Resources and the Opposers, to demonstrate that an increase in the percentage of re-usable LIRFs is appropriate. The Opposers will have 63 days from the date of service to provide written comments concerning the Piezometer Report to the District and the Division of Water Resources. Applicant must obtain the Division of Water Resources' approval of the Piezometer Report prior to claiming augmentation credit for LIRFs that is greater than the 15% credit approved herein. The Division of Water Resources shall review said Piezometer Report and the Opposers' comments thereto and within 63 days of receipt of said comments, the Division of Water Resources shall (a) Reject the findings of the Piezometer Report and not allow any increase in LIRF credits; (b) Accept the findings of the Piezometer Report and approve the increase in LIRF credit percentage requested therein by the District; or (c) Accept a portion of the findings of the Piezometer Report while rejecting others and recommending an alternative increase in LIRF credit percentages. Either Applicant or Opposers may appeal any such decision by the Division of Water Resources to this Court under the Court's retained jurisdiction as described in Paragraphs 57 and 58, below, and any such appealing party shall have the burden of proof in such an appeal. Applicant shall have the initial burden of proof that the requested increase in percentage of LIRFs credit will not result in injury to other water users. Following acceptance of the Piezometer Report by the Division of Water Resources or the Court under its retained jurisdiction, in whole or in part, increased LIRF credits may be taken by the District.

viii. The District shall have the right to decide if and when to install each of the said piezometers, but the District shall receive no increased credit for LIRFs

in the Sand Creek basin until the piezometers are installed and the Division of Water Resources has approved any increase in the LIRF credit percentage based upon the Piezometer Report described above.

I. The timing of accrual of LIRFs to the Sand Creek stream system was determined by the District using the Glover equation, using representative aquifer hydraulic characteristics and centroidal distances to live flow in the respective creeks, and the alluvial boundaries for each drainage basin. Such analysis determined that LIRFs will accrue to the alluvium of Sand Creek within 30 days. The timing of accrual of LIRFs is such that the LIRFS will accrue in the month following irrigation water application.

J. The LIRFs available to the District under this Decree may be used, reused, and successively used by the District for the same decreed purposes as the reusable water which generates such LIRFs, including, but not limited to, use as a replacement source for the plan for augmentation decreed herein.

K. LIRF credits in excess of the District's augmentation obligations will remain in the stream, but the District does not waive and expressly reserves its right to claim and use any excess LIRF credits in a subsequent plan for augmentation upon approval by this Court. To the extent LIRF credits are insufficient in any month to replace depletions resulting from not-nontributary well pumping, evaporation, and out-of-priority storage, the District shall during such month, and on a schedule acceptable to the Division Engineer, pump sufficient quantities of nontributary Denver Basin groundwater to Sand Creek at a point at or above the point depicted on **Exhibit B2**. In order to document the amount of monthly nontributary Denver Basin pumping required to augment any alluvial depletions measured to be in excess of available LIRF's, if any, depletions will be tracked on a daily basis in Applicant's accounting, an example of which is provided in **Exhibit C**, and augmented monthly as reported to the Water Commissioner. Depletions will be tracked in the accounting sheet as follows:

- | | | |
|--|---|-----------|
| 1) Daily Total Depletion to Alluvium | = | Column AR |
| 2) Daily Estimated LIRF Volume (Credits to Alluvium) | = | Column AS |
| 3) Daily Obligations to Alluvium | = | Column AT |
| 4) Daily Excess Credits to Alluvium | = | Column AU |

At the end of each month, if augmentation obligations are in excess of LIRF credits calculated to be available, the District shall pump nontributary groundwater at or above the point depicted on **Exhibit B2**. If there are excess LIRF credits, such LIRF Credits can be carried over for augmentation purposes only for a period of one month as tracked in column AW of the Exhibit C accounting.

31. Other Supplies of Augmentation Water of Limited Duration. Pursuant to C.R.S. §37-92-305(8), the Court may authorize the District to use additional or alternative sources of augmentation water for replacement in this augmentation plan, including water leased by the District, if such sources are part of a substitute water supply plan approved pursuant to C.R.S. §37-92-308, or an interruptible supply agreement approved under C.R.S. §37-92-309, or other applicable and/or successor statutes, or if such sources are

decreed for such use. In order to add these sources to this plan for augmentation, the procedures in Paragraphs 31.A. and 31.B. must be followed. These procedures are adequate to prevent injury to other water rights that might otherwise result from the addition of these sources to this plan.

A. Additional Water Rights Separately Decreed or Lawfully Available for Augmentation Use. If a water right is decreed or lawfully available for augmentation use and not already approved for such use under this Decree, the District shall give at least 63 days advance written notice of use of the water right for augmentation to the Court, the Division Engineer, and all the objectors herein which shall describe: 1) the water right by name and decree, if any; 2) the annual and monthly amount of water available to SRMD from the water right; 3) the manner by which the water will be used to replace out-of-priority depletions associated with this plan for augmentation; 4) the date of initial use of the water in this plan for augmentation; 5) the duration of use of the water in this plan for augmentation; 6) identification of any applicable exchanges, including the exchange reach, if the water is to be introduced downstream of the out-of-priority depletion; 7) if an exchange is required for the water to be used, proposed terms and conditions relative to the exchange operation; 8) the location or locations at which the water will be delivered to the stream; 9) evidence that the claimed amount of water is available for use in this plan for augmentation and is not and will not be used by any other person; and, 10) the manner in which the District will account for use of the augmentation credits. Said notice shall specifically include a request that the Court enter an Order either affirming or denying the District's proposal, and that said Order be attached to this Decree.

i. Objection to Use of New Source. If any person wishes to object to the addition of the noticed water rights to this plan for augmentation, a written objection shall be filed with the court within 63 days after the date the Notice was given by the District. If no objection is so filed, the Court shall promptly enter an Order affirming the District's immediate use of the noticed water rights. If an objection is so filed, then the District may not use the noticed water rights until the Court has determined whether and under what terms and conditions the water rights may be used in this plan.

ii. Hearing on Use of New Source. Where an objection has been filed to the use of a noticed water right in this plan for augmentation, the Court shall promptly schedule a hearing to determine whether and under what terms and conditions the water right may be used in this plan for augmentation. The Court shall conduct whatever proceedings are needed to appropriately address and resolve the disputed issues. At such hearing, the Court shall impose such terms and conditions as necessary to prevent injury to vested water rights and decreed conditional water rights. If the Notice requested temporary use of the noticed water rights in this plan for augmentation for a period not to exceed one year, then the Court shall grant an expedited hearing.

iii. New Sources Requiring Operation of Exchange. Where the use of a noticed water right in this plan for augmentation requires the operation of any new exchange(s), the District must obtain approval of the Division Engineer and Water Commissioner prior to operating such exchanges. The District must submit a separate

Water Court application if seeking to adjudicate any such exchange(s).

B. Additional Water rights – Temporary Administrative Approval. If a water right is not decreed or otherwise lawfully available for augmentation use, and Colorado Statutes or other governing authority provides a mechanism for using such water right without the need of a decree, the District shall provide written notice to the objectors herein of its request for approval of the State Engineer pursuant to C.R.S. §37-92-308, or C.R.S. §37-92-309, or any other applicable statute or rule. Such notice shall be in addition to any notice required by any applicable statute or rule. The District may use such water rights in this plan for augmentation upon the State Engineer's approval of the underlying administrative application for the term of any such approval, unless such approval is reversed or modified on appeal or under the retained jurisdiction provisions of this Case No. 20CW3059.

32. Applicant may substitute other legally available augmentation sources for replacement of any such injurious post-pumping depletions under this Court's retained jurisdiction, as described in Paragraph 31, above. Applicant claims that post-pumping depletions will be noninjurious and need not be replaced to prevent injury, though this Court makes no such finding by this decree. Applicant has reserved the right in the future to prove that said post-pumping depletions will be noninjurious under the Court's retained jurisdiction pursuant to paragraph 58.

33. Applicant shall replace post-pumping depletions for the shortest of the following: (a) the period provided by C.R.S. §37-90-137(9)(c); (b) the express period specified by the Colorado Legislature, should it specify one; (c) the period determined by the State Engineer, should he choose to set such a period and have jurisdiction to do so; (d) the period established through rulings of the Colorado Supreme Court on relevant cases, or (e) until Applicant petitions the Water Court, and after notice to parties in the case and the State Engineer's Office, proves that it has complied with any statutory requirement.

34. If operated pursuant to the terms and conditions set forth herein, the plan for augmentation decreed herein will allow Applicant to provide for the augmentation of any injurious out-of-priority stream depletions which may be caused by the pumping of the not-nontributary Denver and Arapahoe aquifer groundwater underlying the Sterling Ranch Metropolitan District Nos. 2 and 3, the SR Quarry Parcel, and out-of-priority storage and evaporative depletions from the SRMD Ponds Nos. 1 and 2. Applicant shall utilize the not-nontributary Denver Basin groundwater in the Denver and Arapahoe aquifers underlying the SRMD Metropolitan District Nos. 2 and 3 and the SR Quarry Parcel for municipal uses throughout the District's municipal service area, as currently exists or as may exist in the future, expressly including augmentation purposes. Applicant shall replace any out-of-priority depletions resulting from the SRMD Ponds Nos. 1 and 2, and the Applicant's use of the not-nontributary Denver Basin ground water described in paragraph 28 above during the pumping life of the wells through LIRFs accruing to Sand Creek, or by pumping of the decreed nontributary supplies decreed in Case Nos. 86CW19 and 08CW113, including from existing SRMD wells, and any injurious post-pumping or

evaporative depletions through the dedication of nontributary Denver Basin groundwater supplies and excess LIRFs. Applicant has reserved sufficient nontributary Denver Basin groundwater supplies for replacement of any injurious post-pumping depletions.

35. Curtailment. Applicant's plan for augmentation, as decreed herein, is sufficient to permit the pumping of not-nontributary supplies in the Denver and Arapahoe aquifers underlying the District as described herein, including the SR Quarry Parcel, and the evaporative depletions from the SRMD Ponds Nos. 1 and 2, to the extent the District complies with all the terms and conditions of this decree including, but not limited to, providing the necessary replacement water as required by this decree. Pursuant to C.R.S. §37-92-305(8), the State Engineer shall curtail all out-of-priority diversions, the depletions from which are not so replaced to prevent injury to vested water rights.

36. Terms and Conditions. This Court finds that there will be no material injury to the owners or users of water diverted under vested water rights or conditional water rights as a result of operation of the plan for augmentation, so long as there is compliance with and proper administration of the protective terms and conditions herein.

A. Lawn Irrigation Return Flow Credits. The lawn irrigation return flows from the District's use of nontributary and not-nontributary groundwater rights, after meeting replacement requirements, shall only be used as an augmentation source in the instant plan for augmentation. All such return flow credits not utilized in the instant plan for augmentation shall, subject to the terms of a future decree, be available for the District's use and re-use, including for sale or lease to other parties.

B. The reserved nontributary Denver Basin groundwater rights are adequate for replacement of all anticipated post-pumping depletions resulting from the groundwater withdrawals from the not-nontributary Denver and Arapahoe aquifers underlying the District as described herein, including the SR Quarry Parcel, and the evaporative depletions from the SRMD Ponds Nos. 1 and 2, augmented under this plan for augmentation. The District shall initiate pumping of said nontributary Denver Basin groundwater, or provision of any alternative augmentation supply as may be decreed by the Court, for the replacement of any out-of-priority post-pumping depletions upon cessation of withdrawals from the Denver and Arapahoe aquifers as augmented herein. "Cessation of Withdrawals" occurs when (1) the total volume of water available from the Denver and Arapahoe aquifers allowed to be withdrawn under the plan for augmentation decreed herein has been withdrawn; (2) the District has acknowledged in writing that all withdrawals from such aquifers have ceased permanently; (3) no withdrawals of groundwater have been made from the subject aquifers for a period of ten (10) consecutive calendar years; or (4) accounting shows that the augmentation sources described in Paragraph 28.B, above, are insufficient to replace depletions caused by withdrawals that have already occurred, and Applicant has not provided supplemental or additional augmentation supplies to remedy such insufficiency. Nothing herein shall preclude the District or its successors from resuming withdrawals from such not-nontributary aquifers after cessation of withdrawals as defined above has occurred. If pumping is resumed, then the District's augmentation requirements for such wells shall

be determined in accordance with Paragraph 28.B of this Decree, and its post-pumping augmentation obligation shall be determined as if no cessation of withdrawals had occurred.

C. A copy of the Decree shall be recorded in the records of the Clerk and Recorder for El Paso County, Colorado, and shall constitute a covenant running with the land, requiring Applicant and its successors in interest to be bound by the terms, conditions, and requirements of this Decree and the plan for augmentation herein, including the requirement to construct and pump well(s) to the nontributary aquifers identified herein or take such other measures as necessary to replace any injurious post-pumping depletions upon Cessation of Withdrawals. Failure of Applicant or its successors in interest to comply with such requirements of this Decree may result in enforcement actions from the State Engineer's Office including curtailment or elimination of pumping from the not-nontributary aquifers. The covenant represented by this Decree when so recorded shall be amended as necessary to conform to the provisions of any amendment to this plan for augmentation which may occur

D. While the adjudications of the Denver Basin groundwater to be utilized in this plan for augmentation anticipate an aquifer life of 300 years for each Denver Basin aquifer, the length of this plan for augmentation may be shorter than, or extend beyond, such time period provided the total pumping allocated to any augmented well or wells is not exceeded. Should the actual operation of this augmentation plan depart from the planned diversions described in this decree such that the plan may be extended beyond the anticipated 300-year aquifer life, Applicant may be required to develop a revised model of stream depletions caused by the actual pumping schedule by the State or Division Engineer. Any such revised model analysis shall utilize depletion modelling acceptable to the State Engineer, and shall represent the water use under the plan for the entire term of the plan to date. The analysis shall further demonstrate that return flows have equaled or exceeded actual stream depletions to date throughout the pumping periods and that reserved nontributary water remains sufficient to replace post-pumping and evaporative depletions. If such revised modeling is required by the State and Division Engineers, the District shall serve the revised model on the Opposers and they shall have 63 days from service of the revised model and analysis to provide the Division Engineer with comments, concerns or objections regarding the revised model. The Division Engineer shall have 70 days from the receipt of the opposers comments on the revised model and analysis to consider the analysis and Opposers comments thereto, and to approve or disapprove the extension of the term of the plan, or to suggest terms and conditions appropriate to such an approval. Either Applicant or Opposers may appeal any such decision by the Division Engineer to this Court under the Court's retained jurisdiction as described in Paragraphs 57 and 58, below, and any such appealing party shall have the burden of proof in such an appeal. Applicant shall have the initial burden of proof that the extension of the term of the plan for augmentation will not result in injury to other water users.

37. Consideration has been given to the depletions from Applicant's use and proposed uses of water, in quantity, time and location, together with the amount and

timing of augmentation water which will be provided by the Applicant, and the existence, if any, of injury to any owner of or person entitled to use water under a vested water right.

38. It is determined that the timing, quantity and location of replacement water under the terms and conditions of this decree are sufficient to protect the vested rights of other water users and eliminate injury thereto. The replacement water shall be of a quantity and quality so as to meet the requirements for which the water of senior appropriators has normally been used, and such replacement water shall be accepted by the senior appropriators in substitution for water derived by the exercise of their decreed rights pursuant to CRS § 37-92-305(5). The depletions from the wells withdrawing not-nontributary water underlying the SR Quarry Parcel, and any additional or replacement wells associated therewith, and the evaporation from the SRMD Ponds Nos. 1 and 2 will not result in injury to the vested water rights of others.

CONCLUSIONS OF LAW

39. Based upon and fully incorporating herein the Findings of Fact set forth above as though fully set forth herein, this Court concludes as a matter of law that:

40. Applicant's request for adjudication of the Denver Basin groundwater underlying the SR Quarry Parcel is contemplated and authorized by law, and this Court and the Water Referee have exclusive jurisdiction over these proceedings. §§ 37-92-302(1)(a), 37-92-203, and 37-92-305, C.R.S.

41. Subject to the terms and conditions of this decree, the Applicant is entitled to the sole right to withdraw all the legally available water in the Denver Basin aquifers underlying the parcels and property described herein, and the right to use that water to the exclusion of all others subject to the terms of this decree.

42. The Applicant has complied with C.R.S. §37-90-137(4), and the Laramie-Fox Hills groundwater underlying the SR Quarry Parcel is legally available for withdrawal, and the not-nontributary Dawson, Denver, and Arapahoe aquifer groundwater underlying the SR Quarry Parcel is legally available for withdrawal upon the entry of a decree approving an augmentation plan pursuant to C.R.S. §37-90-137(9)(c.5), and such a plan for augmentation is decreed herein as concerns the not-nontributary Denver and Arapahoe aquifer groundwater. Applicant is entitled to a decree from this Court confirming its rights to withdraw groundwater pursuant to §37-90-137(4), C.R.S.

43. The Denver Basin water rights described herein are not conditional water rights, but are vested water rights determined pursuant to C.R.S. §37-90-137(4). No applications for diligence are required. The claims for nontributary and not-nontributary groundwater meet the requirements of Colorado Law.

44. The confirmation, determination and quantification of the nontributary and not-nontributary groundwater rights in the Denver Basin aquifers as set forth herein is

contemplated and authorized by law. C.R.S. §§37-90-137, and 37-92-302 through 37-92-305.

45. Satisfaction of Burdens of Proof. Applicant has complied with all requirements and satisfied all standards and burdens of proof including, but not limited to, C.R.S. §§37-92-302 through 305, excepting sections 305(3.5) and 305(3.6) which are inapplicable hereto, as amended. Applicant is entitled to a decree confirming and approving the quantification of Denver Basin groundwater, and the plan for augmentation decreed herein, which will not injuriously affect the owners of or persons entitled to use water under vested water rights or decreed conditional water rights as long as the plan for augmentation is operated and administered in accordance with the terms and conditions herein.

46. The augmentation plan decreed herein is one contemplated by law. If implemented in accordance with the terms and conditions of this decree, the plan will permit the use of water without material injury to the vested or conditionally decreed water rights of others.

47. The Court is required to retain jurisdiction in a decree approving an augmentation plan on the question of injury to vested or conditional water rights. C.R.S. §37-92-304(6). Such jurisdiction is retained and described in detail at Paragraph 57, below.

IT IS THEREFORE ORDERED, ADJUDGED AND DECREED AS FOLLOWS:

48. All of the foregoing Findings of Fact and Conclusions of Law are incorporated herein by reference, and are considered to be a part of this decretal portion as though set forth in full.

49. The Application for Surface Water Storage Rights, Adjudication of Denver Basin Groundwater and for Approval of Plan for Augmentation filed by the Applicant is approved, subject to the terms of this decree.

50. The Applicant will comply with C.R.S. §37-90-137(9)(b) requiring the relinquishment of the right to consume two percent (2%) of the amount of the nontributary groundwater underlying the SR Quarry Parcel adjudicated herein. Ninety eight percent (98%) of the nontributary groundwater withdrawn may therefore be consumed. No plan for augmentation is or shall be required to provide for such relinquishment.

51. The operation of the District's augmentation plan as decreed herein provides for the replacement of all injurious out-of-priority depletions which may result from withdrawals of not-nontributary groundwater from the Denver and Arapahoe aquifers underlying the District, including the SR Quarry Parcel, and out-of-priority storage and evaporative depletions from the use and operation of the SRMD Ponds Nos. 1 and 2, as described herein, augmented during pumping through dedication of lawn irrigation return flows, or pumping of nontributary groundwater decreed in Case Nos. 86CW18, 86CW19

and 08CW113, or additional sources approved in accordance with the terms of this decree, and augmented post-pumping through dedication and pumping of the nontributary Denver Basin groundwater rights decreed in Case No. 93CW18, as more particularly described in Paragraph 28.B, herein. The terms and conditions of this decree are adequate to assure that no injury to any water users will result from operation of this plan for augmentation. The Court approves this plan subject to the terms and conditions contained in this decree.

52. The replacement and augmentation supplies that the District will use for operation of the plan for augmentation decreed herein are of a quality and quantity so as to meet the requirements for which the water of senior appropriators has normally been used.

53. The State and Division Engineers and the Water Commissioner shall administer this augmentation plan in accordance with the terms and conditions contained in this decree. So long as the District operates the SRMD Ponds Nos. 1 and 2, and its wells to the not-nontributary Denver and Arapahoe aquifers in accordance with this decree, this augmentation plan can be operated without adversely affecting the owners or users of vested water rights or decreed conditional water rights on Sand Creek or its tributaries. So long as water is used in conformance with the requirements of this decree, there will be no injurious effects to the vested or decreed conditional water rights of others related to the amount or timing of water availability.

54. The State Engineer, the Division Engineer, and/or the Water Commissioner shall not curtail the diversion and use of water covered by the plan for augmentation decreed herein, so long as the lawn irrigation return flows necessary for augmentation during the pumping life of the not-nontributary Denver and Arapahoe aquifers described herein continue to accrue to the stream system pursuant to the conditions contained herein or the Applicant utilizes the nontributary water available to it under Case Nos. 86CW18, 86CW19 and 08CW113 to replace depletions. To the extent that Applicant or its successors or assigns is unable to provide the replacement water required, then the wells and ponds shall not be entitled to continue under the protection of this plan, and shall be subject to administration and curtailment in accordance with the laws, rules, and regulation of the State of Colorado. Pursuant to C.R.S. §37-92-305(8), the State Engineer shall curtail all out-of-priority diversions which are not so replaced as to prevent injury to vested water rights. In order for this plan for augmentation to operate, LIRFs must at all times during pumping be in an amount sufficient to replace the amount of stream depletions. The State Engineer shall issue well permits in accordance with C.R.S. §37-90-137(4) and/or (10) and consistent with the terms and conditions of this Decree. All such wells constructed by Applicant pursuant to the augmentation plan decreed herein shall be geophysically logged consistent with applicable rules and regulations of the State and Division Engineers.

55. Applicant shall install such metering and measuring devices as may be reasonably required by the State and Division Engineers to ensure proper measurement and accounting of all withdrawals and pumping.

56. Accounting. The District has demonstrated an appropriate method of accounting for diversions and stream depletions associated with the operation of this plan for augmentation. The District's accounting under this decree shall include the following information: (1) the daily volume of water pumped from each not-nontributary Denver and Arapahoe aquifer well; (2) the daily amount of water used for irrigation within the District and from which LIRFs are claimed, (3) the weekly out-of-priority stream depletions from prior weeks' pumping and from the current week's pumping; (4) the source and amount of the replacement sources used for augmentation in this plan, which shall be accounted for daily and reported monthly; and (5) the amount of any additional or alternative augmentation supplies allowed under Paragraph 29, which shall be accounted for daily, balanced weekly, and reported monthly. Unless specifically indicated by this decree, all accounting records required by this decree shall be filed with the State Engineer and Division Engineer on a monthly basis. An example of the District's current accounting forms, in which the accounting required by this plan for augmentation will be integrated, is attached as **Exhibit C**. Such Accounting forms are included as an example only and are not decreed herein. The Applicant's current accounting forms are adequate to account for the water rights and augmentation plan under this decree; however, said forms are not decreed herein and may be changed from time to time so long as the information required by this decree is included in the forms. Applicant shall serve the Opposers and the Division Engineer with any modified accounting forms. The Opposers will have 63 days thereafter to provide written comments concerning the modified accounting forms to Applicant and the Division Engineer. Applicant must obtain the Division Engineer's approval of the modified accounting forms prior to their use. Upon the Division Engineer's approval of the modified accounting forms, Applicant shall file the approved modified accounting forms with the Court, with service on the opposers herein. Applicant shall make its accounting available to the Water Commissioner and to any party who requests it, providing a summary of withdrawals, return flows, depletions, and augmentation releases associated with the District's operation of the augmentation plan approved herein. The daily accounting and all backup and supporting information and documents shall also be provided to any objector making a written request for said accounting for the accounting year, upon payment of reasonable costs. The accounting shall be delivered to the Division Engineer and Water Commissioner in the manner they prescribe and may be delivered to other objectors in paper or electronic format at the District's option.

57. Retained Jurisdiction. Pursuant to the provisions of C.R.S. §37-92-304(6), this plan for augmentation decreed herein shall be subject to the reconsideration of this Court on the question of material injury to vested water rights of others, for a period of five years after Applicant fully utilizes the LIRFs as an augmentation supply, as evidenced by the District's provision of written notice to Opposers herein that all parks and common areas anticipated to result in LIRF credits have been developed and constructed, and the District is irrigating such parks and common areas with approved water sources allowing such LIRF credits to be claimed. Any person, within such period, may petition the Court to invoke its retained jurisdiction. Any person seeking to invoke the Court's retained jurisdiction shall file a verified petition with the Court setting forth the factual basis for the relief requested in the petition, together with proposed decretal language to effect the

petition. The party filing the petition shall have the burden of proof of going forward to establish the facts alleged in the petition. If the Court finds those facts are established, Applicant shall thereupon have the burden of proof to show: (a) that the petitioner is not injured, or (b) that any modification sought by the petitioner is not required to avoid injury to the petitioner, or (c) that any term or condition proposed by Applicant in response to the petition does avoid injury to the petitioner. The Division of Water Resources as a petitioner shall be entitled to assert injury to the vested water rights of others. If no such petition is filed within such period and the retained jurisdiction period is not extended by the Court in accordance with the revisions of the statute, this matter shall become final under its own terms. The Court also retains continuing jurisdiction for the purpose of determining whether the continued reservation of the nontributary Denver Basin water rights in the Denver, Arapahoe, and Laramie-Fox Hills aquifers, more particularly described in Paragraph 28.B., above, for augmentation use hereunder is required and retained jurisdiction for such purpose shall be perpetual. After notice to all objectors, if Applicant can demonstrate to the Court that post-pumping depletions need no longer be replaced and/or are non-injurious, the Court may remove the requirement that the nontributary groundwater must continue to be reserved.

58. Pursuant to C.R.S. §37-92-304(6), the Court shall retain continuing jurisdiction over the plan for augmentation decreed herein for reconsideration of the question of whether the provisions of this decree are necessary and/or sufficient to prevent injury to vested water rights of others, as pertains to the use of Denver Basin groundwater supplies adjudicated herein for augmentation purposes. The Court also retains continuing jurisdiction for the purpose of determining compliance with the terms of the augmentation plan. The Court further retains jurisdiction should the Applicant later seek to amend this decree by seeking to prove that post-pumping depletions are noninjurious, that the extent of replacement for post-pumping depletions is less than the amount of water reserved herein, and other post-pumping matters addressed in Paragraph 28.B. The Court's retained jurisdiction may be invoked using the process set forth in Paragraph 57.

59. Pursuant to C.R.S. §37-92-502(5)(a), the Applicant shall install and maintain such water measurement devices and recording devices as are deemed necessary by the State Engineer or Division Engineers, and the same shall be installed and operated in accordance with instructions from said entities. Applicant is to install and maintain a totalizing flow meter on each well, or any additional or replacement wells associated therewith and are required to include geophysical logging on each well. Applicant shall read and record their well meter readings on April 1st and November 1st of each year and shall submit their meter readings to the Water Commissioner by April 15th and November 15th of each year or more frequently as requested by the Water Commissioner.

60. In compliance with Local Water Court Rule 9, the owner of a conditional water right shall:

A. Upon the sale or transfer of a conditional water right, the transferee shall file with the Water court a notice of transfer which shall state:

1. The title and case number of the case in which the conditional decree was issued;
2. The description of the conditional water right transferred;
3. The name of the transferor;
4. The name and mailing address of the transferee; and
5. A copy of the recorded deed.

B. The transferor of any conditional water rights shall notify the clerk of the water court having jurisdiction of any change in mailing address.

C. The clerk shall place any notice of transfer or change of address in the case file in which the conditional decree was entered and in the case file in which the court first made a finding of reasonable diligence.

61. As to the conditional water rights, pursuant to C.R.S. §37-92-301(4)(a), the Applicant shall, every sixth year after the calendar year in which this conditional water right was decreed or subsequent diligence decreed or issued, if it desires to maintain the same, file an application for a finding of reasonable diligence or these conditional water rights shall be considered abandoned. Applicant shall, during the month of March, and the year of 2028, file an application for a finding of reasonable diligence herein, unless Applicant has, prior to that time, made application to make absolute the conditional water rights guaranteed herein.

62. This Ruling of Referee, when entered as a decree of the Water Court, shall be recorded in the real property records of El Paso County, Colorado. Copies of this ruling shall be mailed as provided by statute.

DATED: March 2, 2022.

BY THE REFEREE:



Kate Brewer, Water Referee
Water Division 2

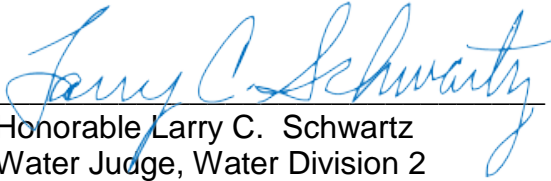


DECREE

THE COURT FINDS THAT NO PROTEST WAS MADE IN THIS MATTER, THEREFOR THE FORGOING RULING IS CONFIRMED AND APPROVED, AND IS HEREBY MADE

THE JUDGMENT AND DECREE OF THIS COURT.

Dated: March 4, 2022



Honorable Larry C. Schwartz
Water Judge, Water Division 2
State of Colorado

EXHIBIT A – Legal Descriptions

Sterling Ranch Metropolitan District Nos. 1, 2 and 3

DATE FILED: January 24, 2022 11:58 AM

The W1/2 W1/2 E1/2 and the E1/2 W1/2 and the SW1/4 SW1/4 of Section 27; the E1/2 SE1/4 and that portion of the SW1/4 SE1/4 lying South and East of the County Road across said premises, both in Section 28; that portion of the SE1/4 SE1/4 of Section 32 lying South and East of said County Road, that portion of the NE1/4 SE1/4 of said Section 32, lying South and East of said County Road, and that portion of the SE1/4 SW1/4 SE1/4 of Section 32 beginning at the SE corner of the SE1/4 SW1/4 SE1/4, then northerly along the east line of the SE1/4 SW1/4 SE1/4 a distance of 495 feet to a point on Vollmer Road, then southwesterly along Vollmer Road 660 feet to a point on the south line, then easterly 495 feet to the point of beginning; the E1/2 and the E1/2 SW1/4 and the SW1/4 SW1/4 of Section 33, and all that part of the NW1/4 of said Section 33 lying South and East of the said County Road across said premises, except that portion of the SW1/4 NW1/4 of said Section 33 lying South and East of said County Road containing approximately 10 acres deeded to Colorado Interstate Gas Company by Warranty Deed recorded in Book 1173 at Page 359 of the El Paso County Records; and the W1/2 E1/2 and the W1/2 of Section 34, all in Township 12 South, Range 65 West of the 6th P.M., located in El Paso County, Colorado. The NW1/4 of the NW1/4 of Section 4, Township 13 South, Range 65 West of the 6th P.M., located in El Paso County, Colorado.

Bar X Land

A parcel of land located in Township 11 South, Range 65 West of the 6th Principal Meridian, El Paso County, Colorado, and more particularly described as follows:

All of Section 16; the E1/2 of the SW1/4 and the SE1/4 of Section 17; the E1/2 of the E1/2 of the W1/2 of Section 20; the NE1/4 and the W1/2, except for the east 30 feet of the SW1/4, of Section 21.

SR Quarry Land

A TRACT OF LAND IN THE SOUTHWEST ONE-QUARTER AND THE SOUTHWEST ONE-QUARTER OF THE SOUTHEAST ONE-QUARTER OF SECTION 32, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN, IN EL PASO COUNTY, COLORADO, DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHWEST CORNER OF SAID SECTION 32; THENCE N89°23'57"E ALONG THE SOUTH LINE OF SECTION 32, 30.00 FEET TO POINT ON THE EASTERLY LINE OF BLACK FOREST ROAD, ACCORDING TO THE RESOLUTION ADOPTED BY THE BOARD OF COMMISSIONERS OF EL PASO COUNTY RECORDED IN ROAD BOOK A AT PAGE 78, WHICH POINT IS THE POINT OF BEGINNING; THENCE N00°02'19"W ALONG SAID EASTERLY LINE, 125.50 FEET TO A POINT ON THE SOUTH LINE OF THAT TRACT OF LAND DESCRIBED IN BOOK 3859 AT PAGE 151; THENCE ALONG THE BOUNDARY OF SAID TRACT FOR THE FOLLOWING FOUR (4) COURSES; (1) THENCE N89°23'57"E, 25.20 FEET; (2) THENCE N42°32'21"E, 664.79 FEET; (3) THENCE N01°44'16"W, 403.43 FEET; (4) THENCE N87°25'38"W, 463.51 FEET TO A POINT ON SAID EASTERLY LINE OF BLACK FOREST ROAD; THENCE N00°02'19"E ALONG SAID EASTERLY LINE, 124.08 FEET; THENCE N89°27'58"E, 2607.50 FEET; THENCE N00°00'40"W ALONG THE NORTH-SOUTH CENTERLINE OF SECTION 32, 152.93 FEET TO THE SOUTHWEST CORNER OF HOLIDAY HILLS NO. 1, ACCORDING TO THE PLAT RECORDED IN PLAT BOOK E2 AT PAGE 12; THENCE N89°31'30"E ALONG THE SOUTH LINE OF SAID HOLIDAY HILLS NO. 1, 1260.38 FEET; THENCE S00°33'58"E ALONG THE WESTERLY LINE OF GLIDER PORT ROAD, AS DEDICATED IN SAID HOLIDAY HILLS NO. 1, 741.29 FEET; THENCE S37°18'25"W ALONG THE NORTHWESTERLY LINE OF VOLLMER ROAD, 721.56 FEET; THENCE S89°23'57"W ALONG THE SOUTH LINE OF SECTION 32, 3437.29 FEET TO THE POINT OF BEGINNING, COUNTY OF EL PASO, STATE OF COLORADO

Retreat Land

A PARCEL OF LAND LOCATED IN A PORTION OF THE SOUTHEAST ONE-QUARTER (SE1/4) OF SECTION 21 AND A PORTION OF THE SOUTHWEST ONE-QUARTER OF SECTION 22, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE 6TH P.M., EL PASO COUNTY, COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BASIS OF BEARINGS: A LINE BETWEEN THE NORTHEAST CORNER OF THE NORTHWEST ONE-QUARTER OF THE NORTHWEST ONE-QUARTER (NW1/4 NW1/4) OF SECTION 27 AND THE SOUTHEAST CORNER OF THE NORTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER (NW1/4 SW1/4) OF SAID SECTION 27, TOWNSHIP 12 SOUTH, RANGE 65 WEST, MONUMENTED AT THE NORTHERLY END BY A 3-1/4" ALUMINUM CAP STAMED "2006 ESI PLS 10376" AND MONUMENTED AT THE SOUTHERLY END BY A 3-1/4" ALUMINUM CAP STAMPED "2006 ESI PLS 10376" AND IS ASSUMED TO BEAR S00°54'30"E, A DISTANCE OF 3925.63 FEET;

COMMENCING AT THE NORTHEAST CORNER OF THE NORTHWEST ONE-QUARTER OF THE NORTHWEST ONE-QUARTER (NW1/4 NW1/4) OF SECTION 27; THENCE S88°38'56"W ALONG THE NORTH LINE OF SAID NORTHWEST ONE-QUARTER OF THE NORTHWEST ONE-QUARTER (NW1/4 NW1/4), A DISTANCE OF 1047.88 FEET TO THE POINT OF BEGINNING OF THE PARCEL OF LAND HEREIN DESCRIBED; THENCE S88°38'56"W CONTINUING ALONG SAID NORTH LINE, A DISTANCE OF 283.03 FEET TO THE NORTHWEST CORNER OF SAID SECTION 27 SAID POINT ALSO BEING A POINT ON THE EASTERLY RIGHT-OF-WAY LINE AS DESCRIBED IN THE DEED, AS RECORDED IN BOOK 2678 AT PAGE 431 OF THE RECORDS OF THE EL PASO COUNTY CLERK AND RECORDER; THENCE ALONG THE EASTERLY AND NORTHERLY RIGHT-OF-WAY LINES OF SAID DEED THE FOLLOWING TWO (2) COURSES:

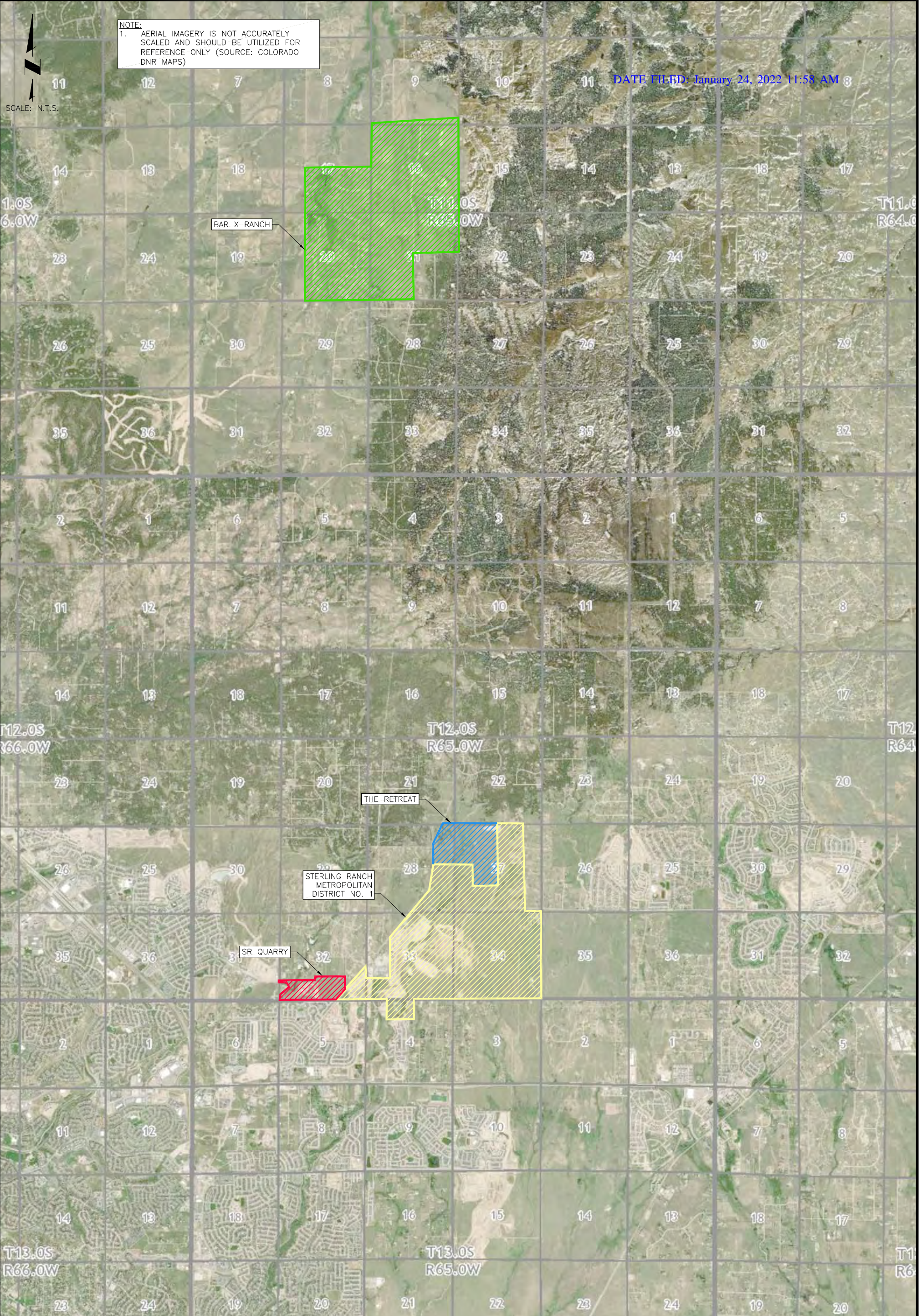
1.N00°37'14"W SAID LINE ALSO BEING THE WEST LINE OF THE SOUTHWEST ONE-QUARTER (SW1/4) OF SAID SECTION 22, A DISTANCE OF 30.00 FEET; 2.S89°40'23"W, A DISTANCE OF 736.82 FEET TO THE POINT OF INTERSECTION OF THEEASTERLY RIGHT-OF-WAY LINE AS DESCRIBED IN THE DEED, AS RECORDED IN BOOK 2678 AT PAGE 430 OF SAID COUNTY RECORDS; THENCE N21°41'10"E ALONG SAID EASTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 1798.07 FEET; THENCE N59°58'50"E, A DISTANCE OF 694.83 FEET; THENCE S14°30'58"E, A DISTANCE OF 567.09 FEET; THENCE N69°36'18"E, A DISTANCE OF 603.87 FEET; THENCE S30°23'46"E, A DISTANCE OF 264.58 FEET; THENCE S61°52'38"W, A DISTANCE OF 227.40 FEET; THENCE S79°15'47"W, A DISTANCE OF 276.17 FEET; THENCE S89°39'18"W, A DISTANCE OF 356.07 FEET; THENCE S40°09'47"W, A DISTANCE OF 310.61 FEET; THENCE S09°56'46"W, A DISTANCE OF 270.03 FEET; THENCE S35°00'25"W, A DISTANCE OF 167.38 FEET; THENCE S57°24'01"W, A DISTANCE OF 235.36 FEET; THENCE S27°23'34"E, A DISTANCE OF 611.29 FEET TO THE POINT OF BEGINNING; SAID PARCEL OF LAND CONTAINS A CALCULATED AREA OF 35.08 ACRES OF LAND, MORE OR LESS.

Along With:

A PARCEL OF LAND BEING THE NORTHWEST ONE-QUARTER OF THE NORTHWEST ONE-QUARTER (NW1/4 NW1/4) OF SECTION 27, THE SOUTHWEST ONE-QUARTER OF THE NORTHWEST ONE-QUARTER (SW1/4 NW1/4) OF SECTION 27, THE NORTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER (NW1/4 SW1/4) OF SECTION 27, A PORTION OF THE SOUTHEAST ONE-QUARTER OF THE NORTHEAST ONE-QUARTER OF SECTION 28 AND A PORTION OF THE NORTHEAST ONE-QUARTER OF THE NORTHEAST ONE-QUARTER (NE1/4 NE1/4) OF SECTION 28, ALL IN TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE 6TH P.M., EL PASO COUNTY, COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BASIS OF BEARINGS: A LINE BETWEEN THE NORTHEAST CORNER OF THE NORTHWEST ONE-QUARTER OF THE NORTHWEST ONE-QUARTER (NW1/4 NW1/4) OF SECTION 27 AND THE SOUTHEAST CORNER OF THE NORTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER (NW1/4 SW1/4) OF SAID SECTION 27, TOWNSHIP 12 SOUTH, RANGE 65 WEST, MONUMENTED AT THE NORTHERLY END BY A 3-1/4" ALUMINUM CAP STAMED "2006 ESI PLS 10376" AND MONUMENTED AT THE SOUTHERLY END BY A 3-1/4" ALUMINUM CAP STAMPED "2006 ESI PLS 10376" AND IS ASSUMED TO BEAR S00°54'30"E, A DISTANCE OF 3925.63 FEET;

COMMENCING AT THE NORTHEAST CORNER OF THE NORTHWEST ONE-QUARTER OF THE NORTHWEST ONE-QUARTER (NW1/4 NW1/4) OF SECTION 27, SAID POINT ALSO BEING THE POINT OF BEGINNING OF THE PARCEL OF LAND HEREIN DESCRIBED; THENCE S00°54'30"E ALONG THE EAST LINE OF THE WEST ONE-HALF (W1/2) OF SAID SECTION 27, A DISTANCE OF 3925.63 FEET TO THE SOUTHEAST CORNER OF THE NORTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER NW1/4 SW1/4) OF SAID SECTION 27; THENCE S87°35'00"W ALONG THE SOUTH LINE OF SAID NORTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER (NW1/4 SW1/4), A DISTANCE OF 1332.78 FEET TO THE SOUTHWEST CORNER OF SAID NORTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER (NW1/4 SW1/4); THENCE N00°53'18"W ALONG THE WEST LINE OF SAID NORTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER (NW1/4 SW1/4), A DISTANCE OF 1316.78 FEET TO THE NORTHWEST CORNER OF SAID NORTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER (NW1/4 SW1/4); THENCE S89°08'28"W ALONG THE SOUTH LINE OF THE SOUTHEAST ONE-QUARTER OF THE NORTHEAST ONE-QUARTER (SE1/4 NE1/4) OF SECTION 28, A DISTANCE OF 1326.68 FEET TO THE SOUTHWEST CORNER OF SAID SOUTHEAST ONE-QUARTER OF THE NORTHEAST ONE-QUARTER (SE1/4 NE1/4); THENCE N00°30'49"W ALONG THE WEST LINE OF SAID SOUTHEAST ONE-QUARTER OF THE NORTHEAST ONE-QUARTER (SE1/4 NE1/4), A DISTANCE OF 1270.77 FEET TO A POINT ON THE EASTERLY RIGHT-OF-WAY LINE AS DESCRIBED IN THE DEED, AS RECORDED IN BOOK 2678 AT PAGE 430 OF THE RECORDS OF THE EL PASO COUNTY CLERK AND RECORDER; THENCE N21°41'10"E ALONG SAID EASTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 1450.84 FEET TO THE POINT OF INTERSECTION OF THE SOUTHERLY RIGHT-OF-WAY LINE AS DESCRIBED IN THE DEED, AS RECORDED IN BOOK 2678 AT PAGE 431 OF SAID COUNTY RECORDS; THENCE ALONG THE SOUTHERLY AND EASTERLY RIGHT-OF-WAY LINES OF SAID DEED THE FOLLOWING TWO (2) COURSES: 1. N89°40'23"E, A DISTANCE OF 761.52 FEET TO A POINT ON THE EAST LINE OF SAID NORTHEAST ONE-QUARTER OF THE NORTHEAST ONE-QUARTER (NE1/4 NE1/4); 2. N00°52'58"W ALONG SAID EAST LINE, A DISTANCE OF 30.00 FEET TO THE NORTHWEST CORNER OF SAID SECTION 27; THENCE N88°38'56"E ALONG THE NORTH LINE OF SAID NORTHWEST ONE-QUARTER OF THE NORTHWEST ONE-QUARTER (NW1/4 NW1/4), A DISTANCE OF 1330.91 FEET TO THE POINT OF BEGINNING; SAID PARCEL OF LAND CONTAINS A CALCULATED AREA OF 190.89 ACRES OF LAND, MORE OR LESS.



NOTE:
1. AERIAL IMAGERY IS NOT ACCURATELY SCALED AND SHOULD BE UTILIZED FOR REFERENCE ONLY (SOURCE: COLORADO DNR MAPS)

DATE FILED: January 24, 2022 11:58 AM 8

SCALE: N.T.S.

BAR X RANCH

THE RETREAT

STERLING RANCH METROPOLITAN DISTRICT NO. 1

SR QUARRY

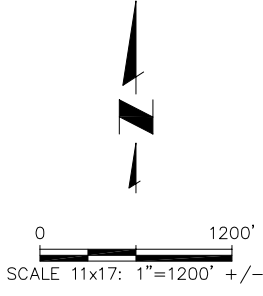
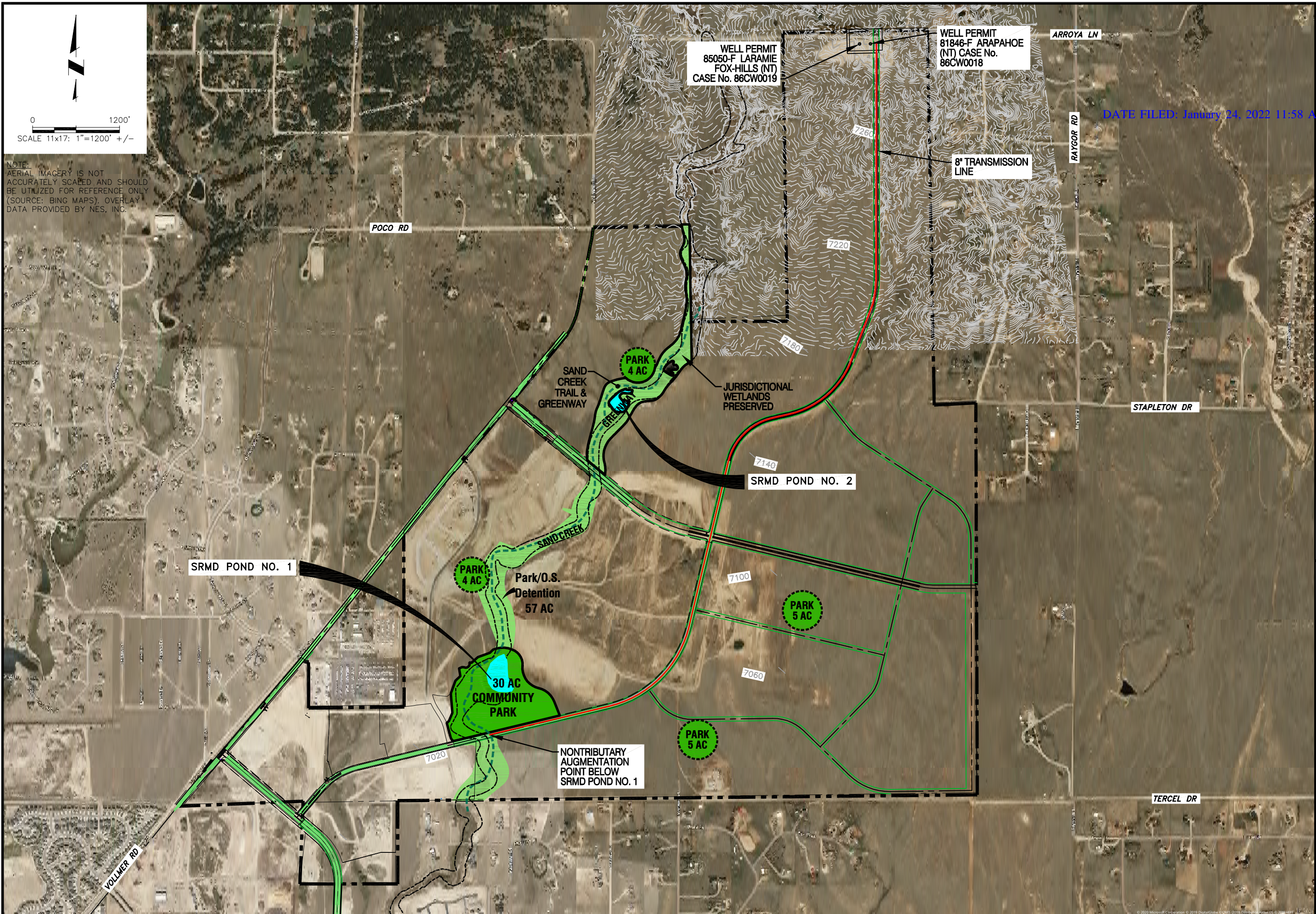
1	Project No.: 161.06E
	Date: 02/19/21
	Design: DES
	Drawn: ACH
	Check: DES
	Revised:
	Revised:
EXHIBIT	

STERLING RANCH METROPOLITAN DISTRICT NO. 1
 WATER COURT CASE NO. 20CW3059 AND SUPPORTING PROPERTIES
 LOCATION OF STERLING RANCH AND SUBJECT PROPERTIES
 EXHIBIT B1

JDS-HYDRO CONSULTANTS, INC.
 5540 TECH CENTER DR., SUITE 100
 COLORADO SPRINGS, COLORADO 80919
 (719) 227-0072

DISCLAIMER: THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS. ANY ERRORS OR OMISSIONS SHALL BE REPORTED TO JDS-HYDRO CONSULTANTS, INC. JDS-HYDRO ASSUMES NO LIABILITY FOR UNAUTHORIZED CHANGES AND/OR REVISIONS MADE TO PLANS.

2021/09/22 8:43 AM By: Andrew Hood J:\JDS-Hydro\Project Files\161 Morley Investments, LLC\161.06 Sterling Ranch Water Reports\Drawings\Exhibits\16106E_Exhibit-B2.dwg



NOTE:
AERIAL IMAGERY IS NOT ACCURATELY SCALED AND SHOULD BE UTILIZED FOR REFERENCE ONLY (SOURCE: BING MAPS), OVERLAY DATA PROVIDED BY NES, INC.

DATE FILED: January 24, 2022 11:58 AM

JDS-HYDRO CONSULTANTS, INC.
545 EAST PIKES PEAK AVENUE, SUITE 300
COLORADO SPRINGS, COLORADO 80903
(719) 227-0072

DISCLAIMER: THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS. ANY ERRORS OR OMISSIONS SHALL BE REPORTED TO JDS-HYDRO CONSULTANTS, INC. JDS-HYDRO CONSULTANTS, INC. SHALL BE RESPONSIBLE FOR UNAUTHORIZED CHANGES AND/OR REVISIONS MADE TO PLANS.

STERLING RANCH METROPOLITAN DISTRICT
NONTRIBUTARY AUGMENTATION POINT
EXHIBIT B.2.

NO.	DESCRIPTION	BY	APP.	DATE
1				
2				
3				
4				
5				
6				
7				

PRELIMINARY

Project No.: 161.06E
Date: 09/21/21
Design: DES
Drawn: ACH
Check: DES

ounting - SRMD Pond No. 1 and Pond No. 2

DATE FILED: January 24, 2022 11:58 AM

No. 1

Beginning of Day Staff Gauge Reading	_____	ft
Beginning of Day Volume ¹	_____	Acre-feet
End of Day Staff Gauge Reading	_____	ft
End of Day Staff Volume ¹	_____	Acre-feet
End of Day Gain / Loss in Volume (D-B)	_____	ft

No. 2

Beginning of Day Staff Gauge Reading	_____	ft
Beginning of Day Volume ²	_____	Acre-feet
End of Day Staff Gauge Reading	_____	ft
End of Day Staff Volume ²	_____	Acre-feet
End of Day Gain / Loss in Volume (I-G)	_____	ft

Total Volume Gain / Loss in Volume (E+J)	_____	Acre-feet
Is there a Free River? (yes / no)	_____	
Admin Number of Calling Right	_____	

1) Volume from SRMD Pond No. 1 Stage-Storage Table No. 1

2) Volume from SRMD Pond No. 2 Stage-Storage Table No. 2

Sterling Ranch Metropolitan District
Case No. 20CW3059 - Daily Accounting Summary for Augmentation Plan
prepared by: JDS-Hydro Consultants, Inc.

Evaporation Accounting - SRMD Pond No. 1 and Pond No. 2

Date: _____

SRMD Pond No. 1

A) Beginning of Day Staff Gauge Reading	_____	ft
B) Beginning of Day Surface Area ¹	_____	Acre-feet
C) End of Day Staff Gauge Reading	_____	ft
D) End of Day Staff Surface Area ¹	_____	Acre-feet
E) End of Day Average Surface Area (D-B)	_____	ft
F) Precipitation ²	_____	inches
G) Effective Precipitation $((F)*0.7)/12$	_____	ft
I) Gross Lake Evaporation ³	_____	ft
J) Net Lake Evaporation (I-G)	_____	AF/Acre
K) Daily Average Evaporation (J*E)	_____	AF

SRMD Pond No. 2

L) Beginning of Day Staff Gauge Reading	_____	ft
M) Beginning of Day Surface Area ²	_____	Acre-feet
N) End of Day Staff Gauge Reading	_____	ft
O) End of Day Staff Surface Area ²	_____	Acre-feet
P) End of Day Average Surface Area (D-B)	_____	ft
Q) Precipitation ²	_____	inches
R) Effective Precipitation $((Q)*0.7)/12$	_____	ft
S) Gross Lake Evaporation ³	_____	ft
T) Net Lake Evaporation (S-R)	_____	AF/Acre
U) Daily Average Evaporation (T*P)	_____	AF

Summary

V) Total Evaporation Volume (U+K)	_____	Acre-feet
W) Is there a Free River? (yes / no)	_____	
X) Admin Number of Calling Right	_____	

Note: 1) Volume from SRMD Pond No. 1 Stage-Surface Area Table No. 1

2) From Black Forest 6 WNW Weather Station

3) Monthly Gross Evaporation Rate from Table 3

2) Volume from SRMD Pond No. 2 Stage-Surface Area Table No. 2

Sterling Ranch Metropolitan District
Case No. 20CW3059 - Daily Accounting Summary for Augmentation Plan
prepared by: JDS-Hydro Consultants, Inc.

Table 3 - Monthly Gross Evaporation Rates for SRMD

Month	% of Annual Evaporation % of Acres	Gross Lake Evaporation Rate - Feet
January	1.0%	0.039
February	3.0%	0.116
March	6.0%	0.233
April	9.0%	0.349
May	12.5%	0.484
June	15.5%	0.601
July	16.0%	0.620
August	13.0%	0.504
September	11.0%	0.426
October	7.5%	0.291
November	4.0%	0.155
December	1.5%	0.058
Total	1.0	3.875

Sterling Ranch Metropolitan District
Case No. 20CW3059 - Daily Accounting Summary for Augmentation Plan
prepared by: JDS-Hydro Consultants, Inc.

Well Pumping / Accounting - NT and NNT Wells

Date: _____

Not-Nontributary Well Pumping

1) SR Quarry Denver Well No. 1

A) Meter Reading - Beginning of Day	_____	gallons
B) Meter Reading - End of Day	_____	gallons
C) Total gallons pumped (B-A)	_____	gallons
D) Alluvial depletions (4%*C)	_____	gallons
E) Alluvial depletions (D/325851)	_____	AF

2) SR Quarry Arapahoe Well No. 1

F) Meter Reading - Beginning of Day	_____	gallons
G) Meter Reading - End of Day	_____	gallons
H) Total gallons pumped (G-F)	_____	gallons
I) Alluvial depletions (4%*H)	_____	gallons
J) Alluvial depletions (I/325851)	_____	AF

3) SRMD Well D-1

K) Meter Reading - Beginning of Day	_____	gallons
L) Meter Reading - End of Day	_____	gallons
M) Total gallons pumped (L-K)	_____	gallons
N) Alluvial depletions (4%*N)	_____	gallons
O) Alluvial depletions (N/325851)	_____	AF
P) Total alluvial depletions (E+J+O)	_____	AF

Nontributary Well Pumping

4) SRMD Well A-1

Q) Meter Reading - Beginning of Day	_____	gallons
R) Meter Reading - End of Day	_____	gallons
S) Total gallons pumped (R-Q)	_____	gallons
T) Total gallons pumped (S/325851)	_____	AF

5) SRMD Well LFH-2

U) Meter Reading - Beginning of Day	_____ gallons
V) Meter Reading - End of Day	_____ gallons
W) Total gallons pumped (R-Q)	_____ gallons
X) Total gallons pumped (S/325851)	_____ AF
Y) Total NT pumped (T+X)	_____ AF

Sterling Ranch Metropolitan District
Case No. 20CW3059 - Daily Accounting Summary for Augmentation Plan
prepared by: JDS-Hydro Consultants, Inc.

Lawn Irrigation Return Flows (LIRF) Calculations

Date: _____

LIRF Credit Calculations

A) Metered municipal irrigation use	_____	gallons
B) Metered municipal irrigation use (A/325851)	_____	AF
C) Estimated irrigation losses (B*0.735)	_____	AF
D) Adjusted irrigation application (B-C)	_____	AF
E) Fixed LIRF return flow rate	_____	15 %
F) Estimated LIRF volume (D*E)	_____	AF

EXHIBIT D

SRMD Pond No. 1 Elevation-Area-Capacity - JDS-Hydro - September 2021

Staff Gage	Depth	Elevation	Area (ac)	Capacity (ac-ft)	
0	0.00	7028	0.000	0.000	Reservoir Bottom
2	2.00	7030	1.235	1.230	
4	4.00	7032	1.619	4.090	
6	6.00	7034	2.013	7.720	
8	8.00	7036	2.516	12.250	Spillway Crest / NWL
10	10.00	7038	3.612	17.390	
12	12.00	7040	4.676	24.600	Dam Crest

Elevation-Area-Capacity Interpolated to 1/100th ft.

Staff Gauge	Depth	Elevation	Area (AC)	Capacity (AF)	Comments
0.00	0.00	7028.00	0.00	0.00	Reservoir Bottom
0.01	0.01	7028.01	0.006	0.006	
0.02	0.02	7028.02	0.012	0.012	
0.03	0.03	7028.03	0.018	0.018	
0.04	0.04	7028.04	0.025	0.025	
0.05	0.05	7028.05	0.031	0.031	
0.06	0.06	7028.06	0.037	0.037	
0.07	0.07	7028.07	0.043	0.043	
0.08	0.08	7028.08	0.049	0.049	
0.09	0.09	7028.09	0.055	0.055	
0.10	0.10	7028.10	0.062	0.062	
0.11	0.11	7028.11	0.068	0.068	
0.12	0.12	7028.12	0.074	0.074	
0.13	0.13	7028.13	0.080	0.080	
0.14	0.14	7028.14	0.086	0.086	
0.15	0.15	7028.15	0.092	0.092	
0.16	0.16	7028.16	0.098	0.098	
0.17	0.17	7028.17	0.105	0.105	
0.18	0.18	7028.18	0.111	0.111	
0.19	0.19	7028.19	0.117	0.117	
0.20	0.20	7028.20	0.123	0.123	
0.21	0.21	7028.21	0.129	0.129	
0.22	0.22	7028.22	0.135	0.135	
0.23	0.23	7028.23	0.141	0.141	
0.24	0.24	7028.24	0.148	0.148	
0.25	0.25	7028.25	0.154	0.154	
0.26	0.26	7028.26	0.160	0.160	
0.27	0.27	7028.27	0.166	0.166	
0.28	0.28	7028.28	0.172	0.172	
0.29	0.29	7028.29	0.178	0.178	
0.30	0.30	7028.30	0.185	0.185	

SRMD Pond No. 2 Elevation-Area-Capacity - JDS-Hydro - September 2021

Staff Gage	Depth	Elevation	Area (ac)	Capacity (ac-ft)	
0	0.00	7114	0.000	0.000	Reservoir Bottom
1	1.00	7115	0.031	0.020	
2	2.00	7116	0.662	0.360	
4	4.00	7118	1.015	2.040	
6	6.00	7120	1.233	4.290	Spillway Crest / NWL
8	8.00	7122	1.602	6.76	
10	10.00	7124	2.548	9.96	Dam Crest

Elevation-Area-Capacity Interpolated to 1/100th ft.

Staff Gauge	Depth	Elevation	Area (AC)	Capacity (AF)	Comments
0.00	0.00	7114.00	0.000	0.000	Reservoir Bottom
0.01	0.01	7114.01	0.000	0.000	
0.02	0.02	7114.02	0.001	0.000	
0.03	0.03	7114.03	0.001	0.001	
0.04	0.04	7114.04	0.001	0.001	
0.05	0.05	7114.05	0.002	0.001	
0.06	0.06	7114.06	0.002	0.001	
0.07	0.07	7114.07	0.002	0.001	
0.08	0.08	7114.08	0.002	0.002	
0.09	0.09	7114.09	0.003	0.002	
0.10	0.10	7114.10	0.003	0.002	
0.11	0.11	7114.11	0.003	0.002	
0.12	0.12	7114.12	0.004	0.002	
0.13	0.13	7114.13	0.004	0.003	
0.14	0.14	7114.14	0.004	0.003	
0.15	0.15	7114.15	0.005	0.003	
0.16	0.16	7114.16	0.005	0.003	
0.17	0.17	7114.17	0.005	0.003	
0.18	0.18	7114.18	0.005	0.004	
0.19	0.19	7114.19	0.006	0.004	
0.20	0.20	7114.20	0.006	0.004	
0.21	0.21	7114.21	0.006	0.004	
0.22	0.22	7114.22	0.007	0.004	
0.23	0.23	7114.23	0.007	0.005	
0.24	0.24	7114.24	0.007	0.005	
0.25	0.25	7114.25	0.008	0.005	
0.26	0.26	7114.26	0.008	0.005	
0.27	0.27	7114.27	0.008	0.005	
0.28	0.28	7114.28	0.008	0.006	
0.29	0.29	7114.29	0.009	0.006	
0.30	0.30	7114.30	0.009	0.006	

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0.31	0.31	7028.31	0.191	0.191	
0.32	0.32	7028.32	0.197	0.197	
0.33	0.33	7028.33	0.203	0.203	
0.34	0.34	7028.34	0.209	0.209	
0.35	0.35	7028.35	0.215	0.215	
0.36	0.36	7028.36	0.221	0.221	
0.37	0.37	7028.37	0.228	0.228	
0.38	0.38	7028.38	0.234	0.234	
0.39	0.39	7028.39	0.240	0.240	
0.40	0.40	7028.40	0.246	0.246	
0.41	0.41	7028.41	0.252	0.252	
0.42	0.42	7028.42	0.258	0.258	
0.43	0.43	7028.43	0.264	0.264	
0.44	0.44	7028.44	0.271	0.271	
0.45	0.45	7028.45	0.277	0.277	
0.46	0.46	7028.46	0.283	0.283	
0.47	0.47	7028.47	0.289	0.289	
0.48	0.48	7028.48	0.295	0.295	
0.49	0.49	7028.49	0.301	0.301	
0.50	0.50	7028.50	0.308	0.308	
0.51	0.51	7028.51	0.314	0.314	
0.52	0.52	7028.52	0.320	0.320	
0.53	0.53	7028.53	0.326	0.326	
0.54	0.54	7028.54	0.332	0.332	
0.55	0.55	7028.55	0.338	0.338	
0.56	0.56	7028.56	0.344	0.344	
0.57	0.57	7028.57	0.351	0.351	
0.58	0.58	7028.58	0.357	0.357	
0.59	0.59	7028.59	0.363	0.363	
0.60	0.60	7028.60	0.369	0.369	
0.61	0.61	7028.61	0.375	0.375	
0.62	0.62	7028.62	0.381	0.381	
0.63	0.63	7028.63	0.387	0.387	
0.64	0.64	7028.64	0.394	0.394	
0.65	0.65	7028.65	0.400	0.400	
0.66	0.66	7028.66	0.406	0.406	
0.67	0.67	7028.67	0.412	0.412	
0.68	0.68	7028.68	0.418	0.418	
0.69	0.69	7028.69	0.424	0.424	
0.70	0.70	7028.70	0.430	0.430	
0.71	0.71	7028.71	0.437	0.437	
0.72	0.72	7028.72	0.443	0.443	
0.73	0.73	7028.73	0.449	0.449	
0.74	0.74	7028.74	0.455	0.455	
0.75	0.75	7028.75	0.461	0.461	
0.76	0.76	7028.76	0.467	0.467	

0.31	0.31	7114.31	0.009	0.006	
0.32	0.32	7114.32	0.010	0.006	
0.33	0.33	7114.33	0.010	0.007	
0.34	0.34	7114.34	0.010	0.007	
0.35	0.35	7114.35	0.011	0.007	
0.36	0.36	7114.36	0.011	0.007	
0.37	0.37	7114.37	0.011	0.007	
0.38	0.38	7114.38	0.011	0.008	
0.39	0.39	7114.39	0.012	0.008	
0.40	0.40	7114.40	0.012	0.008	
0.41	0.41	7114.41	0.012	0.008	
0.42	0.42	7114.42	0.013	0.008	
0.43	0.43	7114.43	0.013	0.009	
0.44	0.44	7114.44	0.013	0.009	
0.45	0.45	7114.45	0.014	0.009	
0.46	0.46	7114.46	0.014	0.009	
0.47	0.47	7114.47	0.014	0.009	
0.48	0.48	7114.48	0.014	0.010	
0.49	0.49	7114.49	0.015	0.010	
0.50	0.50	7114.50	0.015	0.010	
0.51	0.51	7114.51	0.015	0.010	
0.52	0.52	7114.52	0.016	0.010	
0.53	0.53	7114.53	0.016	0.011	
0.54	0.54	7114.54	0.016	0.011	
0.55	0.55	7114.55	0.017	0.011	
0.56	0.56	7114.56	0.017	0.011	
0.57	0.57	7114.57	0.017	0.011	
0.58	0.58	7114.58	0.017	0.012	
0.59	0.59	7114.59	0.018	0.012	
0.60	0.60	7114.60	0.018	0.012	
0.61	0.61	7114.61	0.018	0.012	
0.62	0.62	7114.62	0.019	0.012	
0.63	0.63	7114.63	0.019	0.013	
0.64	0.64	7114.64	0.019	0.013	
0.65	0.65	7114.65	0.020	0.013	
0.66	0.66	7114.66	0.020	0.013	
0.67	0.67	7114.67	0.020	0.013	
0.68	0.68	7114.68	0.020	0.014	
0.69	0.69	7114.69	0.021	0.014	
0.70	0.70	7114.70	0.021	0.014	
0.71	0.71	7114.71	0.021	0.014	
0.72	0.72	7114.72	0.022	0.014	
0.73	0.73	7114.73	0.022	0.015	
0.74	0.74	7114.74	0.022	0.015	
0.75	0.75	7114.75	0.023	0.015	
0.76	0.76	7114.76	0.023	0.015	

0.77	0.77	7028.77	0.474	0.474	
0.78	0.78	7028.78	0.480	0.480	
0.79	0.79	7028.79	0.486	0.486	
0.80	0.80	7028.80	0.492	0.492	
0.81	0.81	7028.81	0.498	0.498	
0.82	0.82	7028.82	0.504	0.504	
0.83	0.83	7028.83	0.510	0.510	
0.84	0.84	7028.84	0.517	0.517	
0.85	0.85	7028.85	0.523	0.523	
0.86	0.86	7028.86	0.529	0.529	
0.87	0.87	7028.87	0.535	0.535	
0.88	0.88	7028.88	0.541	0.541	
0.89	0.89	7028.89	0.547	0.547	
0.90	0.90	7028.90	0.553	0.553	
0.91	0.91	7028.91	0.560	0.560	
0.92	0.92	7028.92	0.566	0.566	
0.93	0.93	7028.93	0.572	0.572	
0.94	0.94	7028.94	0.578	0.578	
0.95	0.95	7028.95	0.584	0.584	
0.96	0.96	7028.96	0.590	0.590	
0.97	0.97	7028.97	0.597	0.597	
0.98	0.98	7028.98	0.603	0.603	
0.99	0.99	7028.99	0.609	0.609	
1.00	1.00	7029.00	0.615	0.615	
1.01	1.01	7029.01	0.621	0.621	
1.02	1.02	7029.02	0.627	0.627	
1.03	1.03	7029.03	0.633	0.633	
1.04	1.04	7029.04	0.640	0.640	
1.05	1.05	7029.05	0.646	0.646	
1.06	1.06	7029.06	0.652	0.652	
1.07	1.07	7029.07	0.658	0.658	
1.08	1.08	7029.08	0.664	0.664	
1.09	1.09	7029.09	0.670	0.670	
1.10	1.10	7029.10	0.676	0.676	
1.11	1.11	7029.11	0.683	0.683	
1.12	1.12	7029.12	0.689	0.689	
1.13	1.13	7029.13	0.695	0.695	
1.14	1.14	7029.14	0.701	0.701	
1.15	1.15	7029.15	0.707	0.707	
1.16	1.16	7029.16	0.713	0.713	
1.17	1.17	7029.17	0.720	0.720	
1.18	1.18	7029.18	0.726	0.726	
1.19	1.19	7029.19	0.732	0.732	
1.20	1.20	7029.20	0.738	0.738	
1.21	1.21	7029.21	0.744	0.744	
1.22	1.22	7029.22	0.750	0.750	

0.77	0.77	7114.77	0.023	0.015	
0.78	0.78	7114.78	0.023	0.016	
0.79	0.79	7114.79	0.024	0.016	
0.80	0.80	7114.80	0.024	0.016	
0.81	0.81	7114.81	0.024	0.016	
0.82	0.82	7114.82	0.025	0.016	
0.83	0.83	7114.83	0.025	0.017	
0.84	0.84	7114.84	0.025	0.017	
0.85	0.85	7114.85	0.026	0.017	
0.86	0.86	7114.86	0.026	0.017	
0.87	0.87	7114.87	0.026	0.017	
0.88	0.88	7114.88	0.026	0.018	
0.89	0.89	7114.89	0.027	0.018	
0.90	0.90	7114.90	0.027	0.018	
0.91	0.91	7114.91	0.027	0.018	
0.92	0.92	7114.92	0.028	0.018	
0.93	0.93	7114.93	0.028	0.019	
0.94	0.94	7114.94	0.028	0.019	
0.95	0.95	7114.95	0.029	0.019	
0.96	0.96	7114.96	0.029	0.019	
0.97	0.97	7114.97	0.029	0.019	
0.98	0.98	7114.98	0.029	0.020	
0.99	0.99	7114.99	0.030	0.020	
1.00	1.00	7115.00	0.030	0.020	
1.01	1.01	7115.01	0.036	0.023	
1.02	1.02	7115.02	0.043	0.026	
1.03	1.03	7115.03	0.049	0.029	
1.04	1.04	7115.04	0.055	0.032	
1.05	1.05	7115.05	0.061	0.035	
1.06	1.06	7115.06	0.068	0.038	
1.07	1.07	7115.07	0.074	0.041	
1.08	1.08	7115.08	0.080	0.044	
1.09	1.09	7115.09	0.087	0.047	
1.10	1.10	7115.10	0.093	0.050	
1.11	1.11	7115.11	0.099	0.053	
1.12	1.12	7115.12	0.106	0.056	
1.13	1.13	7115.13	0.112	0.059	
1.14	1.14	7115.14	0.118	0.062	
1.15	1.15	7115.15	0.124	0.065	
1.16	1.16	7115.16	0.131	0.068	
1.17	1.17	7115.17	0.137	0.071	
1.18	1.18	7115.18	0.143	0.074	
1.19	1.19	7115.19	0.150	0.077	
1.20	1.20	7115.20	0.156	0.080	
1.21	1.21	7115.21	0.162	0.083	
1.22	1.22	7115.22	0.169	0.086	

1.23	1.23	7029.23	0.756	0.756	
1.24	1.24	7029.24	0.763	0.763	
1.25	1.25	7029.25	0.769	0.769	
1.26	1.26	7029.26	0.775	0.775	
1.27	1.27	7029.27	0.781	0.781	
1.28	1.28	7029.28	0.787	0.787	
1.29	1.29	7029.29	0.793	0.793	
1.30	1.30	7029.30	0.799	0.799	
1.31	1.31	7029.31	0.806	0.806	
1.32	1.32	7029.32	0.812	0.812	
1.33	1.33	7029.33	0.818	0.818	
1.34	1.34	7029.34	0.824	0.824	
1.35	1.35	7029.35	0.830	0.830	
1.36	1.36	7029.36	0.836	0.836	
1.37	1.37	7029.37	0.843	0.843	
1.38	1.38	7029.38	0.849	0.849	
1.39	1.39	7029.39	0.855	0.855	
1.40	1.40	7029.40	0.861	0.861	
1.41	1.41	7029.41	0.867	0.867	
1.42	1.42	7029.42	0.873	0.873	
1.43	1.43	7029.43	0.879	0.879	
1.44	1.44	7029.44	0.886	0.886	
1.45	1.45	7029.45	0.892	0.892	
1.46	1.46	7029.46	0.898	0.898	
1.47	1.47	7029.47	0.904	0.904	
1.48	1.48	7029.48	0.910	0.910	
1.49	1.49	7029.49	0.916	0.916	
1.50	1.50	7029.50	0.922	0.922	
1.51	1.51	7029.51	0.929	0.929	
1.52	1.52	7029.52	0.935	0.935	
1.53	1.53	7029.53	0.941	0.941	
1.54	1.54	7029.54	0.947	0.947	
1.55	1.55	7029.55	0.953	0.953	
1.56	1.56	7029.56	0.959	0.959	
1.57	1.57	7029.57	0.966	0.966	
1.58	1.58	7029.58	0.972	0.972	
1.59	1.59	7029.59	0.978	0.978	
1.60	1.60	7029.60	0.984	0.984	
1.61	1.61	7029.61	0.990	0.990	
1.62	1.62	7029.62	0.996	0.996	
1.63	1.63	7029.63	1.002	1.002	
1.64	1.64	7029.64	1.009	1.009	
1.65	1.65	7029.65	1.015	1.015	
1.66	1.66	7029.66	1.021	1.021	
1.67	1.67	7029.67	1.027	1.027	
1.68	1.68	7029.68	1.033	1.033	

1.23	1.23	7115.23	0.175	0.089	
1.24	1.24	7115.24	0.181	0.092	
1.25	1.25	7115.25	0.187	0.095	
1.26	1.26	7115.26	0.194	0.098	
1.27	1.27	7115.27	0.200	0.101	
1.28	1.28	7115.28	0.206	0.104	
1.29	1.29	7115.29	0.213	0.107	
1.30	1.30	7115.30	0.219	0.110	
1.31	1.31	7115.31	0.225	0.113	
1.32	1.32	7115.32	0.232	0.116	
1.33	1.33	7115.33	0.238	0.119	
1.34	1.34	7115.34	0.244	0.122	
1.35	1.35	7115.35	0.250	0.125	
1.36	1.36	7115.36	0.257	0.128	
1.37	1.37	7115.37	0.263	0.131	
1.38	1.38	7115.38	0.269	0.134	
1.39	1.39	7115.39	0.276	0.137	
1.40	1.40	7115.40	0.282	0.140	
1.41	1.41	7115.41	0.288	0.143	
1.42	1.42	7115.42	0.295	0.146	
1.43	1.43	7115.43	0.301	0.149	
1.44	1.44	7115.44	0.307	0.152	
1.45	1.45	7115.45	0.313	0.155	
1.46	1.46	7115.46	0.320	0.158	
1.47	1.47	7115.47	0.326	0.161	
1.48	1.48	7115.48	0.332	0.164	
1.49	1.49	7115.49	0.339	0.167	
1.50	1.50	7115.50	0.345	0.170	
1.51	1.51	7115.51	0.351	0.173	
1.52	1.52	7115.52	0.358	0.176	
1.53	1.53	7115.53	0.364	0.179	
1.54	1.54	7115.54	0.370	0.182	
1.55	1.55	7115.55	0.376	0.185	
1.56	1.56	7115.56	0.383	0.188	
1.57	1.57	7115.57	0.389	0.191	
1.58	1.58	7115.58	0.395	0.194	
1.59	1.59	7115.59	0.402	0.197	
1.60	1.60	7115.60	0.408	0.200	
1.61	1.61	7115.61	0.414	0.203	
1.62	1.62	7115.62	0.420	0.206	
1.63	1.63	7115.63	0.427	0.209	
1.64	1.64	7115.64	0.433	0.212	
1.65	1.65	7115.65	0.439	0.215	
1.66	1.66	7115.66	0.446	0.218	
1.67	1.67	7115.67	0.452	0.221	
1.68	1.68	7115.68	0.458	0.224	

1.69	1.69	7029.69	1.039	1.039	
1.70	1.70	7029.70	1.046	1.046	
1.71	1.71	7029.71	1.052	1.052	
1.72	1.72	7029.72	1.058	1.058	
1.73	1.73	7029.73	1.064	1.064	
1.74	1.74	7029.74	1.070	1.070	
1.75	1.75	7029.75	1.076	1.076	
1.76	1.76	7029.76	1.082	1.082	
1.77	1.77	7029.77	1.089	1.089	
1.78	1.78	7029.78	1.095	1.095	
1.79	1.79	7029.79	1.101	1.101	
1.80	1.80	7029.80	1.107	1.107	
1.81	1.81	7029.81	1.113	1.113	
1.82	1.82	7029.82	1.119	1.119	
1.83	1.83	7029.83	1.125	1.125	
1.84	1.84	7029.84	1.132	1.132	
1.85	1.85	7029.85	1.138	1.138	
1.86	1.86	7029.86	1.144	1.144	
1.87	1.87	7029.87	1.150	1.150	
1.88	1.88	7029.88	1.156	1.156	
1.89	1.89	7029.89	1.162	1.162	
1.90	1.90	7029.90	1.169	1.169	
1.91	1.91	7029.91	1.175	1.175	
1.92	1.92	7029.92	1.181	1.181	
1.93	1.93	7029.93	1.187	1.187	
1.94	1.94	7029.94	1.193	1.193	
1.95	1.95	7029.95	1.199	1.199	
1.96	1.96	7029.96	1.205	1.205	
1.97	1.97	7029.97	1.212	1.212	
1.98	1.98	7029.98	1.218	1.218	
1.99	1.99	7029.99	1.224	1.224	
2.00	2.00	7030.00	1.230	1.230	
2.01	2.01	7030.01	1.232	1.244	
2.02	2.02	7030.02	1.234	1.259	
2.03	2.03	7030.03	1.236	1.273	
2.04	2.04	7030.04	1.238	1.287	
2.05	2.05	7030.05	1.240	1.302	
2.06	2.06	7030.06	1.242	1.316	
2.07	2.07	7030.07	1.244	1.330	
2.08	2.08	7030.08	1.246	1.344	
2.09	2.09	7030.09	1.248	1.359	
2.10	2.10	7030.10	1.250	1.373	
2.11	2.11	7030.11	1.251	1.387	
2.12	2.12	7030.12	1.253	1.402	
2.13	2.13	7030.13	1.255	1.416	
2.14	2.14	7030.14	1.257	1.430	

1.69	1.69	7115.69	0.465	0.227	
1.70	1.70	7115.70	0.471	0.230	
1.71	1.71	7115.71	0.477	0.233	
1.72	1.72	7115.72	0.483	0.236	
1.73	1.73	7115.73	0.490	0.239	
1.74	1.74	7115.74	0.496	0.242	
1.75	1.75	7115.75	0.502	0.245	
1.76	1.76	7115.76	0.509	0.248	
1.77	1.77	7115.77	0.515	0.251	
1.78	1.78	7115.78	0.521	0.254	
1.79	1.79	7115.79	0.528	0.257	
1.80	1.80	7115.80	0.534	0.260	
1.81	1.81	7115.81	0.540	0.263	
1.82	1.82	7115.82	0.546	0.266	
1.83	1.83	7115.83	0.553	0.269	
1.84	1.84	7115.84	0.559	0.272	
1.85	1.85	7115.85	0.565	0.275	
1.86	1.86	7115.86	0.572	0.278	
1.87	1.87	7115.87	0.578	0.281	
1.88	1.88	7115.88	0.584	0.284	
1.89	1.89	7115.89	0.591	0.287	
1.90	1.90	7115.90	0.597	0.290	
1.91	1.91	7115.91	0.603	0.293	
1.92	1.92	7115.92	0.609	0.296	
1.93	1.93	7115.93	0.616	0.299	
1.94	1.94	7115.94	0.622	0.302	
1.95	1.95	7115.95	0.628	0.305	
1.96	1.96	7115.96	0.635	0.308	
1.97	1.97	7115.97	0.641	0.311	
1.98	1.98	7115.98	0.647	0.314	
1.99	1.99	7115.99	0.654	0.317	
2.00	2.00	7116.00	0.662	0.360	
2.01	2.01	7116.01	0.664	0.368	
2.02	2.02	7116.02	0.665	0.377	
2.03	2.03	7116.03	0.667	0.385	
2.04	2.04	7116.04	0.669	0.394	
2.05	2.05	7116.05	0.671	0.402	
2.06	2.06	7116.06	0.673	0.410	
2.07	2.07	7116.07	0.674	0.419	
2.08	2.08	7116.08	0.676	0.427	
2.09	2.09	7116.09	0.678	0.436	
2.10	2.10	7116.10	0.680	0.444	
2.11	2.11	7116.11	0.681	0.452	
2.12	2.12	7116.12	0.683	0.461	
2.13	2.13	7116.13	0.685	0.469	
2.14	2.14	7116.14	0.687	0.478	

2.15	2.15	7030.15	1.259	1.445	
2.16	2.16	7030.16	1.261	1.459	
2.17	2.17	7030.17	1.263	1.473	
2.18	2.18	7030.18	1.265	1.487	
2.19	2.19	7030.19	1.267	1.502	
2.20	2.20	7030.20	1.269	1.516	
2.21	2.21	7030.21	1.271	1.530	
2.22	2.22	7030.22	1.273	1.545	
2.23	2.23	7030.23	1.275	1.559	
2.24	2.24	7030.24	1.277	1.573	
2.25	2.25	7030.25	1.279	1.588	
2.26	2.26	7030.26	1.281	1.602	
2.27	2.27	7030.27	1.283	1.616	
2.28	2.28	7030.28	1.285	1.630	
2.29	2.29	7030.29	1.287	1.645	
2.30	2.30	7030.30	1.289	1.659	
2.31	2.31	7030.31	1.290	1.673	
2.32	2.32	7030.32	1.292	1.688	
2.33	2.33	7030.33	1.294	1.702	
2.34	2.34	7030.34	1.296	1.716	
2.35	2.35	7030.35	1.298	1.731	
2.36	2.36	7030.36	1.300	1.745	
2.37	2.37	7030.37	1.302	1.759	
2.38	2.38	7030.38	1.304	1.773	
2.39	2.39	7030.39	1.306	1.788	
2.40	2.40	7030.40	1.308	1.802	
2.41	2.41	7030.41	1.310	1.816	
2.42	2.42	7030.42	1.312	1.831	
2.43	2.43	7030.43	1.314	1.845	
2.44	2.44	7030.44	1.316	1.859	
2.45	2.45	7030.45	1.318	1.874	
2.46	2.46	7030.46	1.320	1.888	
2.47	2.47	7030.47	1.322	1.902	
2.48	2.48	7030.48	1.324	1.916	
2.49	2.49	7030.49	1.326	1.931	
2.50	2.50	7030.50	1.327	1.945	
2.51	2.51	7030.51	1.329	1.959	
2.52	2.52	7030.52	1.331	1.974	
2.53	2.53	7030.53	1.333	1.988	
2.54	2.54	7030.54	1.335	2.002	
2.55	2.55	7030.55	1.337	2.017	
2.56	2.56	7030.56	1.339	2.031	
2.57	2.57	7030.57	1.341	2.045	
2.58	2.58	7030.58	1.343	2.059	
2.59	2.59	7030.59	1.345	2.074	
2.60	2.60	7030.60	1.347	2.088	

2.15	2.15	7116.15	0.688	0.486	
2.16	2.16	7116.16	0.690	0.494	
2.17	2.17	7116.17	0.692	0.503	
2.18	2.18	7116.18	0.694	0.511	
2.19	2.19	7116.19	0.696	0.520	
2.20	2.20	7116.20	0.697	0.528	
2.21	2.21	7116.21	0.699	0.536	
2.22	2.22	7116.22	0.701	0.545	
2.23	2.23	7116.23	0.703	0.553	
2.24	2.24	7116.24	0.704	0.562	
2.25	2.25	7116.25	0.706	0.570	
2.26	2.26	7116.26	0.708	0.578	
2.27	2.27	7116.27	0.710	0.587	
2.28	2.28	7116.28	0.711	0.595	
2.29	2.29	7116.29	0.713	0.604	
2.30	2.30	7116.30	0.715	0.612	
2.31	2.31	7116.31	0.717	0.620	
2.32	2.32	7116.32	0.719	0.629	
2.33	2.33	7116.33	0.720	0.637	
2.34	2.34	7116.34	0.722	0.646	
2.35	2.35	7116.35	0.724	0.654	
2.36	2.36	7116.36	0.726	0.662	
2.37	2.37	7116.37	0.727	0.671	
2.38	2.38	7116.38	0.729	0.679	
2.39	2.39	7116.39	0.731	0.688	
2.40	2.40	7116.40	0.733	0.696	
2.41	2.41	7116.41	0.734	0.704	
2.42	2.42	7116.42	0.736	0.713	
2.43	2.43	7116.43	0.738	0.721	
2.44	2.44	7116.44	0.740	0.730	
2.45	2.45	7116.45	0.742	0.738	
2.46	2.46	7116.46	0.743	0.746	
2.47	2.47	7116.47	0.745	0.755	
2.48	2.48	7116.48	0.747	0.763	
2.49	2.49	7116.49	0.749	0.772	
2.50	2.50	7116.50	0.750	0.780	
2.51	2.51	7116.51	0.752	0.788	
2.52	2.52	7116.52	0.754	0.797	
2.53	2.53	7116.53	0.756	0.805	
2.54	2.54	7116.54	0.757	0.814	
2.55	2.55	7116.55	0.759	0.822	
2.56	2.56	7116.56	0.761	0.830	
2.57	2.57	7116.57	0.763	0.839	
2.58	2.58	7116.58	0.765	0.847	
2.59	2.59	7116.59	0.766	0.856	
2.60	2.60	7116.60	0.768	0.864	

2.61	2.61	7030.61	1.349	2.102	
2.62	2.62	7030.62	1.351	2.117	
2.63	2.63	7030.63	1.353	2.131	
2.64	2.64	7030.64	1.355	2.145	
2.65	2.65	7030.65	1.357	2.160	
2.66	2.66	7030.66	1.359	2.174	
2.67	2.67	7030.67	1.361	2.188	
2.68	2.68	7030.68	1.363	2.202	
2.69	2.69	7030.69	1.365	2.217	
2.70	2.70	7030.70	1.366	2.231	
2.71	2.71	7030.71	1.368	2.245	
2.72	2.72	7030.72	1.370	2.260	
2.73	2.73	7030.73	1.372	2.274	
2.74	2.74	7030.74	1.374	2.288	
2.75	2.75	7030.75	1.376	2.303	
2.76	2.76	7030.76	1.378	2.317	
2.77	2.77	7030.77	1.380	2.331	
2.78	2.78	7030.78	1.382	2.345	
2.79	2.79	7030.79	1.384	2.360	
2.80	2.80	7030.80	1.386	2.374	
2.81	2.81	7030.81	1.388	2.388	
2.82	2.82	7030.82	1.390	2.403	
2.83	2.83	7030.83	1.392	2.417	
2.84	2.84	7030.84	1.394	2.431	
2.85	2.85	7030.85	1.396	2.446	
2.86	2.86	7030.86	1.398	2.460	
2.87	2.87	7030.87	1.400	2.474	
2.88	2.88	7030.88	1.402	2.488	
2.89	2.89	7030.89	1.404	2.503	
2.90	2.90	7030.90	1.405	2.517	
2.91	2.91	7030.91	1.407	2.531	
2.92	2.92	7030.92	1.409	2.546	
2.93	2.93	7030.93	1.411	2.560	
2.94	2.94	7030.94	1.413	2.574	
2.95	2.95	7030.95	1.415	2.589	
2.96	2.96	7030.96	1.417	2.603	
2.97	2.97	7030.97	1.419	2.617	
2.98	2.98	7030.98	1.421	2.631	
2.99	2.99	7030.99	1.423	2.646	
3.00	3.00	7031.00	1.425	2.660	
3.01	3.01	7031.01	1.427	2.674	
3.02	3.02	7031.02	1.429	2.689	
3.03	3.03	7031.03	1.431	2.703	
3.04	3.04	7031.04	1.433	2.717	
3.05	3.05	7031.05	1.435	2.732	
3.06	3.06	7031.06	1.437	2.746	

2.61	2.61	7116.61	0.770	0.872	
2.62	2.62	7116.62	0.772	0.881	
2.63	2.63	7116.63	0.773	0.889	
2.64	2.64	7116.64	0.775	0.898	
2.65	2.65	7116.65	0.777	0.906	
2.66	2.66	7116.66	0.779	0.914	
2.67	2.67	7116.67	0.780	0.923	
2.68	2.68	7116.68	0.782	0.931	
2.69	2.69	7116.69	0.784	0.940	
2.70	2.70	7116.70	0.786	0.948	
2.71	2.71	7116.71	0.788	0.956	
2.72	2.72	7116.72	0.789	0.965	
2.73	2.73	7116.73	0.791	0.973	
2.74	2.74	7116.74	0.793	0.982	
2.75	2.75	7116.75	0.795	0.990	
2.76	2.76	7116.76	0.796	0.998	
2.77	2.77	7116.77	0.798	1.007	
2.78	2.78	7116.78	0.800	1.015	
2.79	2.79	7116.79	0.802	1.024	
2.80	2.80	7116.80	0.803	1.032	
2.81	2.81	7116.81	0.805	1.040	
2.82	2.82	7116.82	0.807	1.049	
2.83	2.83	7116.83	0.809	1.057	
2.84	2.84	7116.84	0.811	1.066	
2.85	2.85	7116.85	0.812	1.074	
2.86	2.86	7116.86	0.814	1.082	
2.87	2.87	7116.87	0.816	1.091	
2.88	2.88	7116.88	0.818	1.099	
2.89	2.89	7116.89	0.819	1.108	
2.90	2.90	7116.90	0.821	1.116	
2.91	2.91	7116.91	0.823	1.124	
2.92	2.92	7116.92	0.825	1.133	
2.93	2.93	7116.93	0.827	1.141	
2.94	2.94	7116.94	0.828	1.150	
2.95	2.95	7116.95	0.830	1.158	
2.96	2.96	7116.96	0.832	1.166	
2.97	2.97	7116.97	0.834	1.175	
2.98	2.98	7116.98	0.835	1.183	
2.99	2.99	7116.99	0.837	1.192	
3.00	3.00	7117.00	0.839	1.200	
3.01	3.01	7117.01	0.841	1.208	
3.02	3.02	7117.02	0.842	1.217	
3.03	3.03	7117.03	0.844	1.225	
3.04	3.04	7117.04	0.846	1.234	
3.05	3.05	7117.05	0.848	1.242	
3.06	3.06	7117.06	0.850	1.250	

3.07	3.07	7031.07	1.439	2.760	
3.08	3.08	7031.08	1.441	2.774	
3.09	3.09	7031.09	1.443	2.789	
3.10	3.10	7031.10	1.444	2.803	
3.11	3.11	7031.11	1.446	2.817	
3.12	3.12	7031.12	1.448	2.832	
3.13	3.13	7031.13	1.450	2.846	
3.14	3.14	7031.14	1.452	2.860	
3.15	3.15	7031.15	1.454	2.875	
3.16	3.16	7031.16	1.456	2.889	
3.17	3.17	7031.17	1.458	2.903	
3.18	3.18	7031.18	1.460	2.917	
3.19	3.19	7031.19	1.462	2.932	
3.20	3.20	7031.20	1.464	2.946	
3.21	3.21	7031.21	1.466	2.960	
3.22	3.22	7031.22	1.468	2.975	
3.23	3.23	7031.23	1.470	2.989	
3.24	3.24	7031.24	1.472	3.003	
3.25	3.25	7031.25	1.474	3.018	
3.26	3.26	7031.26	1.476	3.032	
3.27	3.27	7031.27	1.478	3.046	
3.28	3.28	7031.28	1.480	3.060	
3.29	3.29	7031.29	1.482	3.075	
3.30	3.30	7031.30	1.483	3.089	
3.31	3.31	7031.31	1.485	3.103	
3.32	3.32	7031.32	1.487	3.118	
3.33	3.33	7031.33	1.489	3.132	
3.34	3.34	7031.34	1.491	3.146	
3.35	3.35	7031.35	1.493	3.161	
3.36	3.36	7031.36	1.495	3.175	
3.37	3.37	7031.37	1.497	3.189	
3.38	3.38	7031.38	1.499	3.203	
3.39	3.39	7031.39	1.501	3.218	
3.40	3.40	7031.40	1.503	3.232	
3.41	3.41	7031.41	1.505	3.246	
3.42	3.42	7031.42	1.507	3.261	
3.43	3.43	7031.43	1.509	3.275	
3.44	3.44	7031.44	1.511	3.289	
3.45	3.45	7031.45	1.513	3.304	
3.46	3.46	7031.46	1.515	3.318	
3.47	3.47	7031.47	1.517	3.332	
3.48	3.48	7031.48	1.519	3.346	
3.49	3.49	7031.49	1.521	3.361	
3.50	3.50	7031.50	1.522	3.375	
3.51	3.51	7031.51	1.524	3.389	
3.52	3.52	7031.52	1.526	3.404	

3.07	3.07	7117.07	0.851	1.259	
3.08	3.08	7117.08	0.853	1.267	
3.09	3.09	7117.09	0.855	1.276	
3.10	3.10	7117.10	0.857	1.284	
3.11	3.11	7117.11	0.858	1.292	
3.12	3.12	7117.12	0.860	1.301	
3.13	3.13	7117.13	0.862	1.309	
3.14	3.14	7117.14	0.864	1.318	
3.15	3.15	7117.15	0.865	1.326	
3.16	3.16	7117.16	0.867	1.334	
3.17	3.17	7117.17	0.869	1.343	
3.18	3.18	7117.18	0.871	1.351	
3.19	3.19	7117.19	0.873	1.360	
3.20	3.20	7117.20	0.874	1.368	
3.21	3.21	7117.21	0.876	1.376	
3.22	3.22	7117.22	0.878	1.385	
3.23	3.23	7117.23	0.880	1.393	
3.24	3.24	7117.24	0.881	1.402	
3.25	3.25	7117.25	0.883	1.410	
3.26	3.26	7117.26	0.885	1.418	
3.27	3.27	7117.27	0.887	1.427	
3.28	3.28	7117.28	0.888	1.435	
3.29	3.29	7117.29	0.890	1.444	
3.30	3.30	7117.30	0.892	1.452	
3.31	3.31	7117.31	0.894	1.460	
3.32	3.32	7117.32	0.896	1.469	
3.33	3.33	7117.33	0.897	1.477	
3.34	3.34	7117.34	0.899	1.486	
3.35	3.35	7117.35	0.901	1.494	
3.36	3.36	7117.36	0.903	1.502	
3.37	3.37	7117.37	0.904	1.511	
3.38	3.38	7117.38	0.906	1.519	
3.39	3.39	7117.39	0.908	1.528	
3.40	3.40	7117.40	0.910	1.536	
3.41	3.41	7117.41	0.911	1.544	
3.42	3.42	7117.42	0.913	1.553	
3.43	3.43	7117.43	0.915	1.561	
3.44	3.44	7117.44	0.917	1.570	
3.45	3.45	7117.45	0.919	1.578	
3.46	3.46	7117.46	0.920	1.586	
3.47	3.47	7117.47	0.922	1.595	
3.48	3.48	7117.48	0.924	1.603	
3.49	3.49	7117.49	0.926	1.612	
3.50	3.50	7117.50	0.927	1.620	
3.51	3.51	7117.51	0.929	1.628	
3.52	3.52	7117.52	0.931	1.637	

3.53	3.53	7031.53	1.528	3.418	
3.54	3.54	7031.54	1.530	3.432	
3.55	3.55	7031.55	1.532	3.447	
3.56	3.56	7031.56	1.534	3.461	
3.57	3.57	7031.57	1.536	3.475	
3.58	3.58	7031.58	1.538	3.489	
3.59	3.59	7031.59	1.540	3.504	
3.60	3.60	7031.60	1.542	3.518	
3.61	3.61	7031.61	1.544	3.532	
3.62	3.62	7031.62	1.546	3.547	
3.63	3.63	7031.63	1.548	3.561	
3.64	3.64	7031.64	1.550	3.575	
3.65	3.65	7031.65	1.552	3.590	
3.66	3.66	7031.66	1.554	3.604	
3.67	3.67	7031.67	1.556	3.618	
3.68	3.68	7031.68	1.558	3.632	
3.69	3.69	7031.69	1.560	3.647	
3.70	3.70	7031.70	1.561	3.661	
3.71	3.71	7031.71	1.563	3.675	
3.72	3.72	7031.72	1.565	3.690	
3.73	3.73	7031.73	1.567	3.704	
3.74	3.74	7031.74	1.569	3.718	
3.75	3.75	7031.75	1.571	3.733	
3.76	3.76	7031.76	1.573	3.747	
3.77	3.77	7031.77	1.575	3.761	
3.78	3.78	7031.78	1.577	3.775	
3.79	3.79	7031.79	1.579	3.790	
3.80	3.80	7031.80	1.581	3.804	
3.81	3.81	7031.81	1.583	3.818	
3.82	3.82	7031.82	1.585	3.833	
3.83	3.83	7031.83	1.587	3.847	
3.84	3.84	7031.84	1.589	3.861	
3.85	3.85	7031.85	1.591	3.876	
3.86	3.86	7031.86	1.593	3.890	
3.87	3.87	7031.87	1.595	3.904	
3.88	3.88	7031.88	1.597	3.918	
3.89	3.89	7031.89	1.599	3.933	
3.90	3.90	7031.90	1.600	3.947	
3.91	3.91	7031.91	1.602	3.961	
3.92	3.92	7031.92	1.604	3.976	
3.93	3.93	7031.93	1.606	3.990	
3.94	3.94	7031.94	1.608	4.004	
3.95	3.95	7031.95	1.610	4.019	
3.96	3.96	7031.96	1.612	4.033	
3.97	3.97	7031.97	1.614	4.047	
3.98	3.98	7031.98	1.616	4.061	

3.53	3.53	7117.53	0.933	1.645	
3.54	3.54	7117.54	0.934	1.654	
3.55	3.55	7117.55	0.936	1.662	
3.56	3.56	7117.56	0.938	1.670	
3.57	3.57	7117.57	0.940	1.679	
3.58	3.58	7117.58	0.942	1.687	
3.59	3.59	7117.59	0.943	1.696	
3.60	3.60	7117.60	0.945	1.704	
3.61	3.61	7117.61	0.947	1.712	
3.62	3.62	7117.62	0.949	1.721	
3.63	3.63	7117.63	0.950	1.729	
3.64	3.64	7117.64	0.952	1.738	
3.65	3.65	7117.65	0.954	1.746	
3.66	3.66	7117.66	0.956	1.754	
3.67	3.67	7117.67	0.957	1.763	
3.68	3.68	7117.68	0.959	1.771	
3.69	3.69	7117.69	0.961	1.780	
3.70	3.70	7117.70	0.963	1.788	
3.71	3.71	7117.71	0.965	1.796	
3.72	3.72	7117.72	0.966	1.805	
3.73	3.73	7117.73	0.968	1.813	
3.74	3.74	7117.74	0.970	1.822	
3.75	3.75	7117.75	0.972	1.830	
3.76	3.76	7117.76	0.973	1.838	
3.77	3.77	7117.77	0.975	1.847	
3.78	3.78	7117.78	0.977	1.855	
3.79	3.79	7117.79	0.979	1.864	
3.80	3.80	7117.80	0.980	1.872	
3.81	3.81	7117.81	0.982	1.880	
3.82	3.82	7117.82	0.984	1.889	
3.83	3.83	7117.83	0.986	1.897	
3.84	3.84	7117.84	0.988	1.906	
3.85	3.85	7117.85	0.989	1.914	
3.86	3.86	7117.86	0.991	1.922	
3.87	3.87	7117.87	0.993	1.931	
3.88	3.88	7117.88	0.995	1.939	
3.89	3.89	7117.89	0.996	1.948	
3.90	3.90	7117.90	0.998	1.956	
3.91	3.91	7117.91	1.000	1.964	
3.92	3.92	7117.92	1.002	1.973	
3.93	3.93	7117.93	1.004	1.981	
3.94	3.94	7117.94	1.005	1.990	
3.95	3.95	7117.95	1.007	1.998	
3.96	3.96	7117.96	1.009	2.006	
3.97	3.97	7117.97	1.011	2.015	
3.98	3.98	7117.98	1.012	2.023	

3.99	3.99	7031.99	1.618	4.076	
4.00	4.00	7032.00	1.620	4.090	
4.01	4.01	7032.01	1.622	4.108	
4.02	4.02	7032.02	1.624	4.126	
4.03	4.03	7032.03	1.626	4.144	
4.04	4.04	7032.04	1.628	4.163	
4.05	4.05	7032.05	1.630	4.181	
4.06	4.06	7032.06	1.632	4.199	
4.07	4.07	7032.07	1.634	4.217	
4.08	4.08	7032.08	1.636	4.235	
4.09	4.09	7032.09	1.638	4.253	
4.10	4.10	7032.10	1.640	4.272	
4.11	4.11	7032.11	1.641	4.290	
4.12	4.12	7032.12	1.643	4.308	
4.13	4.13	7032.13	1.645	4.326	
4.14	4.14	7032.14	1.647	4.344	
4.15	4.15	7032.15	1.649	4.362	
4.16	4.16	7032.16	1.651	4.380	
4.17	4.17	7032.17	1.653	4.399	
4.18	4.18	7032.18	1.655	4.417	
4.19	4.19	7032.19	1.657	4.435	
4.20	4.20	7032.20	1.659	4.453	
4.21	4.21	7032.21	1.661	4.471	
4.22	4.22	7032.22	1.663	4.489	
4.23	4.23	7032.23	1.665	4.507	
4.24	4.24	7032.24	1.667	4.526	
4.25	4.25	7032.25	1.669	4.544	
4.26	4.26	7032.26	1.671	4.562	
4.27	4.27	7032.27	1.673	4.580	
4.28	4.28	7032.28	1.675	4.598	
4.29	4.29	7032.29	1.677	4.616	
4.30	4.30	7032.30	1.679	4.635	
4.31	4.31	7032.31	1.680	4.653	
4.32	4.32	7032.32	1.682	4.671	
4.33	4.33	7032.33	1.684	4.689	
4.34	4.34	7032.34	1.686	4.707	
4.35	4.35	7032.35	1.688	4.725	
4.36	4.36	7032.36	1.690	4.743	
4.37	4.37	7032.37	1.692	4.762	
4.38	4.38	7032.38	1.694	4.780	
4.39	4.39	7032.39	1.696	4.798	
4.40	4.40	7032.40	1.698	4.816	
4.41	4.41	7032.41	1.700	4.834	
4.42	4.42	7032.42	1.702	4.852	
4.43	4.43	7032.43	1.704	4.870	
4.44	4.44	7032.44	1.706	4.889	

3.99	3.99	7117.99	1.014	2.032	
4.00	4.00	7118.00	1.016	2.040	
4.01	4.01	7118.01	1.017	2.051	
4.02	4.02	7118.02	1.018	2.063	
4.03	4.03	7118.03	1.019	2.074	
4.04	4.04	7118.04	1.020	2.085	
4.05	4.05	7118.05	1.021	2.096	
4.06	4.06	7118.06	1.022	2.108	
4.07	4.07	7118.07	1.023	2.119	
4.08	4.08	7118.08	1.024	2.130	
4.09	4.09	7118.09	1.025	2.141	
4.10	4.10	7118.10	1.026	2.153	
4.11	4.11	7118.11	1.027	2.164	
4.12	4.12	7118.12	1.029	2.175	
4.13	4.13	7118.13	1.030	2.186	
4.14	4.14	7118.14	1.031	2.198	
4.15	4.15	7118.15	1.032	2.209	
4.16	4.16	7118.16	1.033	2.220	
4.17	4.17	7118.17	1.034	2.231	
4.18	4.18	7118.18	1.035	2.243	
4.19	4.19	7118.19	1.036	2.254	
4.20	4.20	7118.20	1.037	2.265	
4.21	4.21	7118.21	1.038	2.276	
4.22	4.22	7118.22	1.039	2.288	
4.23	4.23	7118.23	1.041	2.299	
4.24	4.24	7118.24	1.042	2.310	
4.25	4.25	7118.25	1.043	2.321	
4.26	4.26	7118.26	1.044	2.333	
4.27	4.27	7118.27	1.045	2.344	
4.28	4.28	7118.28	1.046	2.355	
4.29	4.29	7118.29	1.047	2.366	
4.30	4.30	7118.30	1.048	2.378	
4.31	4.31	7118.31	1.049	2.389	
4.32	4.32	7118.32	1.050	2.400	
4.33	4.33	7118.33	1.051	2.411	
4.34	4.34	7118.34	1.053	2.423	
4.35	4.35	7118.35	1.054	2.434	
4.36	4.36	7118.36	1.055	2.445	
4.37	4.37	7118.37	1.056	2.456	
4.38	4.38	7118.38	1.057	2.468	
4.39	4.39	7118.39	1.058	2.479	
4.40	4.40	7118.40	1.059	2.490	
4.41	4.41	7118.41	1.060	2.501	
4.42	4.42	7118.42	1.061	2.513	
4.43	4.43	7118.43	1.062	2.524	
4.44	4.44	7118.44	1.063	2.535	

4.45	4.45	7032.45	1.708	4.907	
4.46	4.46	7032.46	1.710	4.925	
4.47	4.47	7032.47	1.712	4.943	
4.48	4.48	7032.48	1.714	4.961	
4.49	4.49	7032.49	1.716	4.979	
4.50	4.50	7032.50	1.717	4.998	
4.51	4.51	7032.51	1.719	5.016	
4.52	4.52	7032.52	1.721	5.034	
4.53	4.53	7032.53	1.723	5.052	
4.54	4.54	7032.54	1.725	5.070	
4.55	4.55	7032.55	1.727	5.088	
4.56	4.56	7032.56	1.729	5.106	
4.57	4.57	7032.57	1.731	5.125	
4.58	4.58	7032.58	1.733	5.143	
4.59	4.59	7032.59	1.735	5.161	
4.60	4.60	7032.60	1.737	5.179	
4.61	4.61	7032.61	1.739	5.197	
4.62	4.62	7032.62	1.741	5.215	
4.63	4.63	7032.63	1.743	5.233	
4.64	4.64	7032.64	1.745	5.252	
4.65	4.65	7032.65	1.747	5.270	
4.66	4.66	7032.66	1.749	5.288	
4.67	4.67	7032.67	1.751	5.306	
4.68	4.68	7032.68	1.753	5.324	
4.69	4.69	7032.69	1.755	5.342	
4.70	4.70	7032.70	1.756	5.361	
4.71	4.71	7032.71	1.758	5.379	
4.72	4.72	7032.72	1.760	5.397	
4.73	4.73	7032.73	1.762	5.415	
4.74	4.74	7032.74	1.764	5.433	
4.75	4.75	7032.75	1.766	5.451	
4.76	4.76	7032.76	1.768	5.469	
4.77	4.77	7032.77	1.770	5.488	
4.78	4.78	7032.78	1.772	5.506	
4.79	4.79	7032.79	1.774	5.524	
4.80	4.80	7032.80	1.776	5.542	
4.81	4.81	7032.81	1.778	5.560	
4.82	4.82	7032.82	1.780	5.578	
4.83	4.83	7032.83	1.782	5.596	
4.84	4.84	7032.84	1.784	5.615	
4.85	4.85	7032.85	1.786	5.633	
4.86	4.86	7032.86	1.788	5.651	
4.87	4.87	7032.87	1.790	5.669	
4.88	4.88	7032.88	1.792	5.687	
4.89	4.89	7032.89	1.794	5.705	
4.90	4.90	7032.90	1.795	5.724	

4.45	4.45	7118.45	1.065	2.546	
4.46	4.46	7118.46	1.066	2.558	
4.47	4.47	7118.47	1.067	2.569	
4.48	4.48	7118.48	1.068	2.580	
4.49	4.49	7118.49	1.069	2.591	
4.50	4.50	7118.50	1.070	2.603	
4.51	4.51	7118.51	1.071	2.614	
4.52	4.52	7118.52	1.072	2.625	
4.53	4.53	7118.53	1.073	2.636	
4.54	4.54	7118.54	1.074	2.648	
4.55	4.55	7118.55	1.075	2.659	
4.56	4.56	7118.56	1.077	2.670	
4.57	4.57	7118.57	1.078	2.681	
4.58	4.58	7118.58	1.079	2.693	
4.59	4.59	7118.59	1.080	2.704	
4.60	4.60	7118.60	1.081	2.715	
4.61	4.61	7118.61	1.082	2.726	
4.62	4.62	7118.62	1.083	2.738	
4.63	4.63	7118.63	1.084	2.749	
4.64	4.64	7118.64	1.085	2.760	
4.65	4.65	7118.65	1.086	2.771	
4.66	4.66	7118.66	1.087	2.783	
4.67	4.67	7118.67	1.089	2.794	
4.68	4.68	7118.68	1.090	2.805	
4.69	4.69	7118.69	1.091	2.816	
4.70	4.70	7118.70	1.092	2.828	
4.71	4.71	7118.71	1.093	2.839	
4.72	4.72	7118.72	1.094	2.850	
4.73	4.73	7118.73	1.095	2.861	
4.74	4.74	7118.74	1.096	2.873	
4.75	4.75	7118.75	1.097	2.884	
4.76	4.76	7118.76	1.098	2.895	
4.77	4.77	7118.77	1.099	2.906	
4.78	4.78	7118.78	1.101	2.918	
4.79	4.79	7118.79	1.102	2.929	
4.80	4.80	7118.80	1.103	2.940	
4.81	4.81	7118.81	1.104	2.951	
4.82	4.82	7118.82	1.105	2.963	
4.83	4.83	7118.83	1.106	2.974	
4.84	4.84	7118.84	1.107	2.985	
4.85	4.85	7118.85	1.108	2.996	
4.86	4.86	7118.86	1.109	3.008	
4.87	4.87	7118.87	1.110	3.019	
4.88	4.88	7118.88	1.111	3.030	
4.89	4.89	7118.89	1.113	3.041	
4.90	4.90	7118.90	1.114	3.053	

4.91	4.91	7032.91	1.797	5.742	
4.92	4.92	7032.92	1.799	5.760	
4.93	4.93	7032.93	1.801	5.778	
4.94	4.94	7032.94	1.803	5.796	
4.95	4.95	7032.95	1.805	5.814	
4.96	4.96	7032.96	1.807	5.832	
4.97	4.97	7032.97	1.809	5.851	
4.98	4.98	7032.98	1.811	5.869	
4.99	4.99	7032.99	1.813	5.887	
5.00	5.00	7033.00	1.815	5.905	
5.01	5.01	7033.01	1.817	5.923	
5.02	5.02	7033.02	1.819	5.941	
5.03	5.03	7033.03	1.821	5.959	
5.04	5.04	7033.04	1.823	5.978	
5.05	5.05	7033.05	1.825	5.996	
5.06	5.06	7033.06	1.827	6.014	
5.07	5.07	7033.07	1.829	6.032	
5.08	5.08	7033.08	1.831	6.050	
5.09	5.09	7033.09	1.833	6.068	
5.10	5.10	7033.10	1.834	6.087	
5.11	5.11	7033.11	1.836	6.105	
5.12	5.12	7033.12	1.838	6.123	
5.13	5.13	7033.13	1.840	6.141	
5.14	5.14	7033.14	1.842	6.159	
5.15	5.15	7033.15	1.844	6.177	
5.16	5.16	7033.16	1.846	6.195	
5.17	5.17	7033.17	1.848	6.214	
5.18	5.18	7033.18	1.850	6.232	
5.19	5.19	7033.19	1.852	6.250	
5.20	5.20	7033.20	1.854	6.268	
5.21	5.21	7033.21	1.856	6.286	
5.22	5.22	7033.22	1.858	6.304	
5.23	5.23	7033.23	1.860	6.322	
5.24	5.24	7033.24	1.862	6.341	
5.25	5.25	7033.25	1.864	6.359	
5.26	5.26	7033.26	1.866	6.377	
5.27	5.27	7033.27	1.868	6.395	
5.28	5.28	7033.28	1.870	6.413	
5.29	5.29	7033.29	1.872	6.431	
5.30	5.30	7033.30	1.873	6.450	
5.31	5.31	7033.31	1.875	6.468	
5.32	5.32	7033.32	1.877	6.486	
5.33	5.33	7033.33	1.879	6.504	
5.34	5.34	7033.34	1.881	6.522	
5.35	5.35	7033.35	1.883	6.540	
5.36	5.36	7033.36	1.885	6.558	

4.91	4.91	7118.91	1.115	3.064	
4.92	4.92	7118.92	1.116	3.075	
4.93	4.93	7118.93	1.117	3.086	
4.94	4.94	7118.94	1.118	3.098	
4.95	4.95	7118.95	1.119	3.109	
4.96	4.96	7118.96	1.120	3.120	
4.97	4.97	7118.97	1.121	3.131	
4.98	4.98	7118.98	1.122	3.143	
4.99	4.99	7118.99	1.123	3.154	
5.00	5.00	7119.00	1.125	3.165	
5.01	5.01	7119.01	1.126	3.176	
5.02	5.02	7119.02	1.127	3.188	
5.03	5.03	7119.03	1.128	3.199	
5.04	5.04	7119.04	1.129	3.210	
5.05	5.05	7119.05	1.130	3.221	
5.06	5.06	7119.06	1.131	3.233	
5.07	5.07	7119.07	1.132	3.244	
5.08	5.08	7119.08	1.133	3.255	
5.09	5.09	7119.09	1.134	3.266	
5.10	5.10	7119.10	1.135	3.278	
5.11	5.11	7119.11	1.136	3.289	
5.12	5.12	7119.12	1.138	3.300	
5.13	5.13	7119.13	1.139	3.311	
5.14	5.14	7119.14	1.140	3.323	
5.15	5.15	7119.15	1.141	3.334	
5.16	5.16	7119.16	1.142	3.345	
5.17	5.17	7119.17	1.143	3.356	
5.18	5.18	7119.18	1.144	3.368	
5.19	5.19	7119.19	1.145	3.379	
5.20	5.20	7119.20	1.146	3.390	
5.21	5.21	7119.21	1.147	3.401	
5.22	5.22	7119.22	1.148	3.413	
5.23	5.23	7119.23	1.150	3.424	
5.24	5.24	7119.24	1.151	3.435	
5.25	5.25	7119.25	1.152	3.446	
5.26	5.26	7119.26	1.153	3.458	
5.27	5.27	7119.27	1.154	3.469	
5.28	5.28	7119.28	1.155	3.480	
5.29	5.29	7119.29	1.156	3.491	
5.30	5.30	7119.30	1.157	3.503	
5.31	5.31	7119.31	1.158	3.514	
5.32	5.32	7119.32	1.159	3.525	
5.33	5.33	7119.33	1.160	3.536	
5.34	5.34	7119.34	1.162	3.548	
5.35	5.35	7119.35	1.163	3.559	
5.36	5.36	7119.36	1.164	3.570	

5.37	5.37	7033.37	1.887	6.577	
5.38	5.38	7033.38	1.889	6.595	
5.39	5.39	7033.39	1.891	6.613	
5.40	5.40	7033.40	1.893	6.631	
5.41	5.41	7033.41	1.895	6.649	
5.42	5.42	7033.42	1.897	6.667	
5.43	5.43	7033.43	1.899	6.685	
5.44	5.44	7033.44	1.901	6.704	
5.45	5.45	7033.45	1.903	6.722	
5.46	5.46	7033.46	1.905	6.740	
5.47	5.47	7033.47	1.907	6.758	
5.48	5.48	7033.48	1.909	6.776	
5.49	5.49	7033.49	1.911	6.794	
5.50	5.50	7033.50	1.912	6.813	
5.51	5.51	7033.51	1.914	6.831	
5.52	5.52	7033.52	1.916	6.849	
5.53	5.53	7033.53	1.918	6.867	
5.54	5.54	7033.54	1.920	6.885	
5.55	5.55	7033.55	1.922	6.903	
5.56	5.56	7033.56	1.924	6.921	
5.57	5.57	7033.57	1.926	6.940	
5.58	5.58	7033.58	1.928	6.958	
5.59	5.59	7033.59	1.930	6.976	
5.60	5.60	7033.60	1.932	6.994	
5.61	5.61	7033.61	1.934	7.012	
5.62	5.62	7033.62	1.936	7.030	
5.63	5.63	7033.63	1.938	7.048	
5.64	5.64	7033.64	1.940	7.067	
5.65	5.65	7033.65	1.942	7.085	
5.66	5.66	7033.66	1.944	7.103	
5.67	5.67	7033.67	1.946	7.121	
5.68	5.68	7033.68	1.948	7.139	
5.69	5.69	7033.69	1.950	7.157	
5.70	5.70	7033.70	1.951	7.176	
5.71	5.71	7033.71	1.953	7.194	
5.72	5.72	7033.72	1.955	7.212	
5.73	5.73	7033.73	1.957	7.230	
5.74	5.74	7033.74	1.959	7.248	
5.75	5.75	7033.75	1.961	7.266	
5.76	5.76	7033.76	1.963	7.284	
5.77	5.77	7033.77	1.965	7.303	
5.78	5.78	7033.78	1.967	7.321	
5.79	5.79	7033.79	1.969	7.339	
5.80	5.80	7033.80	1.971	7.357	
5.81	5.81	7033.81	1.973	7.375	
5.82	5.82	7033.82	1.975	7.393	

5.37	5.37	7119.37	1.165	3.581	
5.38	5.38	7119.38	1.166	3.593	
5.39	5.39	7119.39	1.167	3.604	
5.40	5.40	7119.40	1.168	3.615	
5.41	5.41	7119.41	1.169	3.626	
5.42	5.42	7119.42	1.170	3.638	
5.43	5.43	7119.43	1.171	3.649	
5.44	5.44	7119.44	1.172	3.660	
5.45	5.45	7119.45	1.174	3.671	
5.46	5.46	7119.46	1.175	3.683	
5.47	5.47	7119.47	1.176	3.694	
5.48	5.48	7119.48	1.177	3.705	
5.49	5.49	7119.49	1.178	3.716	
5.50	5.50	7119.50	1.179	3.728	
5.51	5.51	7119.51	1.180	3.739	
5.52	5.52	7119.52	1.181	3.750	
5.53	5.53	7119.53	1.182	3.761	
5.54	5.54	7119.54	1.183	3.773	
5.55	5.55	7119.55	1.184	3.784	
5.56	5.56	7119.56	1.186	3.795	
5.57	5.57	7119.57	1.187	3.806	
5.58	5.58	7119.58	1.188	3.818	
5.59	5.59	7119.59	1.189	3.829	
5.60	5.60	7119.60	1.190	3.840	
5.61	5.61	7119.61	1.191	3.851	
5.62	5.62	7119.62	1.192	3.863	
5.63	5.63	7119.63	1.193	3.874	
5.64	5.64	7119.64	1.194	3.885	
5.65	5.65	7119.65	1.195	3.896	
5.66	5.66	7119.66	1.196	3.908	
5.67	5.67	7119.67	1.198	3.919	
5.68	5.68	7119.68	1.199	3.930	
5.69	5.69	7119.69	1.200	3.941	
5.70	5.70	7119.70	1.201	3.953	
5.71	5.71	7119.71	1.202	3.964	
5.72	5.72	7119.72	1.203	3.975	
5.73	5.73	7119.73	1.204	3.986	
5.74	5.74	7119.74	1.205	3.998	
5.75	5.75	7119.75	1.206	4.009	
5.76	5.76	7119.76	1.207	4.020	
5.77	5.77	7119.77	1.208	4.031	
5.78	5.78	7119.78	1.210	4.043	
5.79	5.79	7119.79	1.211	4.054	
5.80	5.80	7119.80	1.212	4.065	
5.81	5.81	7119.81	1.213	4.076	
5.82	5.82	7119.82	1.214	4.088	

5.83	5.83	7033.83	1.977	7.411	
5.84	5.84	7033.84	1.979	7.430	
5.85	5.85	7033.85	1.981	7.448	
5.86	5.86	7033.86	1.983	7.466	
5.87	5.87	7033.87	1.985	7.484	
5.88	5.88	7033.88	1.987	7.502	
5.89	5.89	7033.89	1.989	7.520	
5.90	5.90	7033.90	1.990	7.539	
5.91	5.91	7033.91	1.992	7.557	
5.92	5.92	7033.92	1.994	7.575	
5.93	5.93	7033.93	1.996	7.593	
5.94	5.94	7033.94	1.998	7.611	
5.95	5.95	7033.95	2.000	7.629	
5.96	5.96	7033.96	2.002	7.647	
5.97	5.97	7033.97	2.004	7.666	
5.98	5.98	7033.98	2.006	7.684	
5.99	5.99	7033.99	2.008	7.702	
6.00	6.00	7034.00	2.010	7.720	
6.01	6.01	7034.01	2.013	7.743	
6.02	6.02	7034.02	2.015	7.765	
6.03	6.03	7034.03	2.018	7.788	
6.04	6.04	7034.04	2.020	7.811	
6.05	6.05	7034.05	2.023	7.833	
6.06	6.06	7034.06	2.025	7.856	
6.07	6.07	7034.07	2.028	7.879	
6.08	6.08	7034.08	2.030	7.901	
6.09	6.09	7034.09	2.033	7.924	
6.10	6.10	7034.10	2.035	7.947	
6.11	6.11	7034.11	2.038	7.969	
6.12	6.12	7034.12	2.040	7.992	
6.13	6.13	7034.13	2.043	8.014	
6.14	6.14	7034.14	2.045	8.037	
6.15	6.15	7034.15	2.048	8.060	
6.16	6.16	7034.16	2.050	8.082	
6.17	6.17	7034.17	2.053	8.105	
6.18	6.18	7034.18	2.056	8.128	
6.19	6.19	7034.19	2.058	8.150	
6.20	6.20	7034.20	2.061	8.173	
6.21	6.21	7034.21	2.063	8.196	
6.22	6.22	7034.22	2.066	8.218	
6.23	6.23	7034.23	2.068	8.241	
6.24	6.24	7034.24	2.071	8.264	
6.25	6.25	7034.25	2.073	8.286	
6.26	6.26	7034.26	2.076	8.309	
6.27	6.27	7034.27	2.078	8.332	
6.28	6.28	7034.28	2.081	8.354	

5.83	5.83	7119.83	1.215	4.099	
5.84	5.84	7119.84	1.216	4.110	
5.85	5.85	7119.85	1.217	4.121	
5.86	5.86	7119.86	1.218	4.133	
5.87	5.87	7119.87	1.219	4.144	
5.88	5.88	7119.88	1.220	4.155	
5.89	5.89	7119.89	1.222	4.166	
5.90	5.90	7119.90	1.223	4.178	
5.91	5.91	7119.91	1.224	4.189	
5.92	5.92	7119.92	1.225	4.200	
5.93	5.93	7119.93	1.226	4.211	
5.94	5.94	7119.94	1.227	4.223	
5.95	5.95	7119.95	1.228	4.234	
5.96	5.96	7119.96	1.229	4.245	
5.97	5.97	7119.97	1.230	4.256	
5.98	5.98	7119.98	1.231	4.268	
5.99	5.99	7119.99	1.232	4.279	
6.00	6.00	7120.00	1.234	4.290	Spillway / NWS
6.01	6.01	7120.01	1.235	4.302	
6.02	6.02	7120.02	1.237	4.315	
6.03	6.03	7120.03	1.239	4.327	
6.04	6.04	7120.04	1.241	4.339	
6.05	6.05	7120.05	1.243	4.352	
6.06	6.06	7120.06	1.245	4.364	
6.07	6.07	7120.07	1.246	4.376	
6.08	6.08	7120.08	1.248	4.389	
6.09	6.09	7120.09	1.250	4.401	
6.10	6.10	7120.10	1.252	4.414	
6.11	6.11	7120.11	1.254	4.426	
6.12	6.12	7120.12	1.256	4.438	
6.13	6.13	7120.13	1.257	4.451	
6.14	6.14	7120.14	1.259	4.463	
6.15	6.15	7120.15	1.261	4.475	
6.16	6.16	7120.16	1.263	4.488	
6.17	6.17	7120.17	1.265	4.500	
6.18	6.18	7120.18	1.267	4.512	
6.19	6.19	7120.19	1.268	4.525	
6.20	6.20	7120.20	1.270	4.537	
6.21	6.21	7120.21	1.272	4.549	
6.22	6.22	7120.22	1.274	4.562	
6.23	6.23	7120.23	1.276	4.574	
6.24	6.24	7120.24	1.278	4.586	
6.25	6.25	7120.25	1.280	4.599	
6.26	6.26	7120.26	1.281	4.611	
6.27	6.27	7120.27	1.283	4.623	
6.28	6.28	7120.28	1.285	4.636	

6.29	6.29	7034.29	2.083	8.377	
6.30	6.30	7034.30	2.086	8.400	
6.31	6.31	7034.31	2.088	8.422	
6.32	6.32	7034.32	2.091	8.445	
6.33	6.33	7034.33	2.093	8.467	
6.34	6.34	7034.34	2.096	8.490	
6.35	6.35	7034.35	2.099	8.513	
6.36	6.36	7034.36	2.101	8.535	
6.37	6.37	7034.37	2.104	8.558	
6.38	6.38	7034.38	2.106	8.581	
6.39	6.39	7034.39	2.109	8.603	
6.40	6.40	7034.40	2.111	8.626	
6.41	6.41	7034.41	2.114	8.649	
6.42	6.42	7034.42	2.116	8.671	
6.43	6.43	7034.43	2.119	8.694	
6.44	6.44	7034.44	2.121	8.717	
6.45	6.45	7034.45	2.124	8.739	
6.46	6.46	7034.46	2.126	8.762	
6.47	6.47	7034.47	2.129	8.785	
6.48	6.48	7034.48	2.131	8.807	
6.49	6.49	7034.49	2.134	8.830	
6.50	6.50	7034.50	2.137	8.853	
6.51	6.51	7034.51	2.139	8.875	
6.52	6.52	7034.52	2.142	8.898	
6.53	6.53	7034.53	2.144	8.920	
6.54	6.54	7034.54	2.147	8.943	
6.55	6.55	7034.55	2.149	8.966	
6.56	6.56	7034.56	2.152	8.988	
6.57	6.57	7034.57	2.154	9.011	
6.58	6.58	7034.58	2.157	9.034	
6.59	6.59	7034.59	2.159	9.056	
6.60	6.60	7034.60	2.162	9.079	
6.61	6.61	7034.61	2.164	9.102	
6.62	6.62	7034.62	2.167	9.124	
6.63	6.63	7034.63	2.169	9.147	
6.64	6.64	7034.64	2.172	9.170	
6.65	6.65	7034.65	2.174	9.192	
6.66	6.66	7034.66	2.177	9.215	
6.67	6.67	7034.67	2.180	9.238	
6.68	6.68	7034.68	2.182	9.260	
6.69	6.69	7034.69	2.185	9.283	
6.70	6.70	7034.70	2.187	9.306	
6.71	6.71	7034.71	2.190	9.328	
6.72	6.72	7034.72	2.192	9.351	
6.73	6.73	7034.73	2.195	9.373	
6.74	6.74	7034.74	2.197	9.396	

6.29	6.29	7120.29	1.287	4.648	
6.30	6.30	7120.30	1.289	4.661	
6.31	6.31	7120.31	1.291	4.673	
6.32	6.32	7120.32	1.292	4.685	
6.33	6.33	7120.33	1.294	4.698	
6.34	6.34	7120.34	1.296	4.710	
6.35	6.35	7120.35	1.298	4.722	
6.36	6.36	7120.36	1.300	4.735	
6.37	6.37	7120.37	1.302	4.747	
6.38	6.38	7120.38	1.303	4.759	
6.39	6.39	7120.39	1.305	4.772	
6.40	6.40	7120.40	1.307	4.784	
6.41	6.41	7120.41	1.309	4.796	
6.42	6.42	7120.42	1.311	4.809	
6.43	6.43	7120.43	1.313	4.821	
6.44	6.44	7120.44	1.314	4.833	
6.45	6.45	7120.45	1.316	4.846	
6.46	6.46	7120.46	1.318	4.858	
6.47	6.47	7120.47	1.320	4.870	
6.48	6.48	7120.48	1.322	4.883	
6.49	6.49	7120.49	1.324	4.895	
6.50	6.50	7120.50	1.326	4.907	
6.51	6.51	7120.51	1.327	4.920	
6.52	6.52	7120.52	1.329	4.932	
6.53	6.53	7120.53	1.331	4.945	
6.54	6.54	7120.54	1.333	4.957	
6.55	6.55	7120.55	1.335	4.969	
6.56	6.56	7120.56	1.337	4.982	
6.57	6.57	7120.57	1.338	4.994	
6.58	6.58	7120.58	1.340	5.006	
6.59	6.59	7120.59	1.342	5.019	
6.60	6.60	7120.60	1.344	5.031	
6.61	6.61	7120.61	1.346	5.043	
6.62	6.62	7120.62	1.348	5.056	
6.63	6.63	7120.63	1.349	5.068	
6.64	6.64	7120.64	1.351	5.080	
6.65	6.65	7120.65	1.353	5.093	
6.66	6.66	7120.66	1.355	5.105	
6.67	6.67	7120.67	1.357	5.117	
6.68	6.68	7120.68	1.359	5.130	
6.69	6.69	7120.69	1.360	5.142	
6.70	6.70	7120.70	1.362	5.154	
6.71	6.71	7120.71	1.364	5.167	
6.72	6.72	7120.72	1.366	5.179	
6.73	6.73	7120.73	1.368	5.192	
6.74	6.74	7120.74	1.370	5.204	

6.75	6.75	7034.75	2.200	9.419	
6.76	6.76	7034.76	2.202	9.441	
6.77	6.77	7034.77	2.205	9.464	
6.78	6.78	7034.78	2.207	9.487	
6.79	6.79	7034.79	2.210	9.509	
6.80	6.80	7034.80	2.212	9.532	
6.81	6.81	7034.81	2.215	9.555	
6.82	6.82	7034.82	2.217	9.577	
6.83	6.83	7034.83	2.220	9.600	
6.84	6.84	7034.84	2.223	9.623	
6.85	6.85	7034.85	2.225	9.645	
6.86	6.86	7034.86	2.228	9.668	
6.87	6.87	7034.87	2.230	9.691	
6.88	6.88	7034.88	2.233	9.713	
6.89	6.89	7034.89	2.235	9.736	
6.90	6.90	7034.90	2.238	9.759	
6.91	6.91	7034.91	2.240	9.781	
6.92	6.92	7034.92	2.243	9.804	
6.93	6.93	7034.93	2.245	9.826	
6.94	6.94	7034.94	2.248	9.849	
6.95	6.95	7034.95	2.250	9.872	
6.96	6.96	7034.96	2.253	9.894	
6.97	6.97	7034.97	2.255	9.917	
6.98	6.98	7034.98	2.258	9.940	
6.99	6.99	7034.99	2.260	9.962	
7.00	7.00	7035.00	2.263	9.985	
7.01	7.01	7035.01	2.266	10.008	
7.02	7.02	7035.02	2.268	10.030	
7.03	7.03	7035.03	2.271	10.053	
7.04	7.04	7035.04	2.273	10.076	
7.05	7.05	7035.05	2.276	10.098	
7.06	7.06	7035.06	2.278	10.121	
7.07	7.07	7035.07	2.281	10.144	
7.08	7.08	7035.08	2.283	10.166	
7.09	7.09	7035.09	2.286	10.189	
7.10	7.10	7035.10	2.288	10.212	
7.11	7.11	7035.11	2.291	10.234	
7.12	7.12	7035.12	2.293	10.257	
7.13	7.13	7035.13	2.296	10.279	
7.14	7.14	7035.14	2.298	10.302	
7.15	7.15	7035.15	2.301	10.325	
7.16	7.16	7035.16	2.303	10.347	
7.17	7.17	7035.17	2.306	10.370	
7.18	7.18	7035.18	2.309	10.393	
7.19	7.19	7035.19	2.311	10.415	
7.20	7.20	7035.20	2.314	10.438	

6.75	6.75	7120.75	1.372	5.216	
6.76	6.76	7120.76	1.373	5.229	
6.77	6.77	7120.77	1.375	5.241	
6.78	6.78	7120.78	1.377	5.253	
6.79	6.79	7120.79	1.379	5.266	
6.80	6.80	7120.80	1.381	5.278	
6.81	6.81	7120.81	1.383	5.290	
6.82	6.82	7120.82	1.384	5.303	
6.83	6.83	7120.83	1.386	5.315	
6.84	6.84	7120.84	1.388	5.327	
6.85	6.85	7120.85	1.390	5.340	
6.86	6.86	7120.86	1.392	5.352	
6.87	6.87	7120.87	1.394	5.364	
6.88	6.88	7120.88	1.395	5.377	
6.89	6.89	7120.89	1.397	5.389	
6.90	6.90	7120.90	1.399	5.401	
6.91	6.91	7120.91	1.401	5.414	
6.92	6.92	7120.92	1.403	5.426	
6.93	6.93	7120.93	1.405	5.439	
6.94	6.94	7120.94	1.406	5.451	
6.95	6.95	7120.95	1.408	5.463	
6.96	6.96	7120.96	1.410	5.476	
6.97	6.97	7120.97	1.412	5.488	
6.98	6.98	7120.98	1.414	5.500	
6.99	6.99	7120.99	1.416	5.513	
7.00	7.00	7121.00	1.418	5.525	
7.01	7.01	7121.01	1.419	5.537	
7.02	7.02	7121.02	1.421	5.550	
7.03	7.03	7121.03	1.423	5.562	
7.04	7.04	7121.04	1.425	5.574	
7.05	7.05	7121.05	1.427	5.587	
7.06	7.06	7121.06	1.429	5.599	
7.07	7.07	7121.07	1.430	5.611	
7.08	7.08	7121.08	1.432	5.624	
7.09	7.09	7121.09	1.434	5.636	
7.10	7.10	7121.10	1.436	5.648	
7.11	7.11	7121.11	1.438	5.661	
7.12	7.12	7121.12	1.440	5.673	
7.13	7.13	7121.13	1.441	5.686	
7.14	7.14	7121.14	1.443	5.698	
7.15	7.15	7121.15	1.445	5.710	
7.16	7.16	7121.16	1.447	5.723	
7.17	7.17	7121.17	1.449	5.735	
7.18	7.18	7121.18	1.451	5.747	
7.19	7.19	7121.19	1.452	5.760	
7.20	7.20	7121.20	1.454	5.772	

7.21	7.21	7035.21	2.316	10.461	
7.22	7.22	7035.22	2.319	10.483	
7.23	7.23	7035.23	2.321	10.506	
7.24	7.24	7035.24	2.324	10.529	
7.25	7.25	7035.25	2.326	10.551	
7.26	7.26	7035.26	2.329	10.574	
7.27	7.27	7035.27	2.331	10.597	
7.28	7.28	7035.28	2.334	10.619	
7.29	7.29	7035.29	2.336	10.642	
7.30	7.30	7035.30	2.339	10.665	
7.31	7.31	7035.31	2.341	10.687	
7.32	7.32	7035.32	2.344	10.710	
7.33	7.33	7035.33	2.346	10.732	
7.34	7.34	7035.34	2.349	10.755	
7.35	7.35	7035.35	2.352	10.778	
7.36	7.36	7035.36	2.354	10.800	
7.37	7.37	7035.37	2.357	10.823	
7.38	7.38	7035.38	2.359	10.846	
7.39	7.39	7035.39	2.362	10.868	
7.40	7.40	7035.40	2.364	10.891	
7.41	7.41	7035.41	2.367	10.914	
7.42	7.42	7035.42	2.369	10.936	
7.43	7.43	7035.43	2.372	10.959	
7.44	7.44	7035.44	2.374	10.982	
7.45	7.45	7035.45	2.377	11.004	
7.46	7.46	7035.46	2.379	11.027	
7.47	7.47	7035.47	2.382	11.050	
7.48	7.48	7035.48	2.384	11.072	
7.49	7.49	7035.49	2.387	11.095	
7.50	7.50	7035.50	2.390	11.118	
7.51	7.51	7035.51	2.392	11.140	
7.52	7.52	7035.52	2.395	11.163	
7.53	7.53	7035.53	2.397	11.185	
7.54	7.54	7035.54	2.400	11.208	
7.55	7.55	7035.55	2.402	11.231	
7.56	7.56	7035.56	2.405	11.253	
7.57	7.57	7035.57	2.407	11.276	
7.58	7.58	7035.58	2.410	11.299	
7.59	7.59	7035.59	2.412	11.321	
7.60	7.60	7035.60	2.415	11.344	
7.61	7.61	7035.61	2.417	11.367	
7.62	7.62	7035.62	2.420	11.389	
7.63	7.63	7035.63	2.422	11.412	
7.64	7.64	7035.64	2.425	11.435	
7.65	7.65	7035.65	2.427	11.457	
7.66	7.66	7035.66	2.430	11.480	

7.21	7.21	7121.21	1.456	5.784	
7.22	7.22	7121.22	1.458	5.797	
7.23	7.23	7121.23	1.460	5.809	
7.24	7.24	7121.24	1.462	5.821	
7.25	7.25	7121.25	1.464	5.834	
7.26	7.26	7121.26	1.465	5.846	
7.27	7.27	7121.27	1.467	5.858	
7.28	7.28	7121.28	1.469	5.871	
7.29	7.29	7121.29	1.471	5.883	
7.30	7.30	7121.30	1.473	5.895	
7.31	7.31	7121.31	1.475	5.908	
7.32	7.32	7121.32	1.476	5.920	
7.33	7.33	7121.33	1.478	5.933	
7.34	7.34	7121.34	1.480	5.945	
7.35	7.35	7121.35	1.482	5.957	
7.36	7.36	7121.36	1.484	5.970	
7.37	7.37	7121.37	1.486	5.982	
7.38	7.38	7121.38	1.487	5.994	
7.39	7.39	7121.39	1.489	6.007	
7.40	7.40	7121.40	1.491	6.019	
7.41	7.41	7121.41	1.493	6.031	
7.42	7.42	7121.42	1.495	6.044	
7.43	7.43	7121.43	1.497	6.056	
7.44	7.44	7121.44	1.498	6.068	
7.45	7.45	7121.45	1.500	6.081	
7.46	7.46	7121.46	1.502	6.093	
7.47	7.47	7121.47	1.504	6.105	
7.48	7.48	7121.48	1.506	6.118	
7.49	7.49	7121.49	1.508	6.130	
7.50	7.50	7121.50	1.510	6.142	
7.51	7.51	7121.51	1.511	6.155	
7.52	7.52	7121.52	1.513	6.167	
7.53	7.53	7121.53	1.515	6.180	
7.54	7.54	7121.54	1.517	6.192	
7.55	7.55	7121.55	1.519	6.204	
7.56	7.56	7121.56	1.521	6.217	
7.57	7.57	7121.57	1.522	6.229	
7.58	7.58	7121.58	1.524	6.241	
7.59	7.59	7121.59	1.526	6.254	
7.60	7.60	7121.60	1.528	6.266	
7.61	7.61	7121.61	1.530	6.278	
7.62	7.62	7121.62	1.532	6.291	
7.63	7.63	7121.63	1.533	6.303	
7.64	7.64	7121.64	1.535	6.315	
7.65	7.65	7121.65	1.537	6.328	
7.66	7.66	7121.66	1.539	6.340	

7.67	7.67	7035.67	2.433	11.503	
7.68	7.68	7035.68	2.435	11.525	
7.69	7.69	7035.69	2.438	11.548	
7.70	7.70	7035.70	2.440	11.571	
7.71	7.71	7035.71	2.443	11.593	
7.72	7.72	7035.72	2.445	11.616	
7.73	7.73	7035.73	2.448	11.638	
7.74	7.74	7035.74	2.450	11.661	
7.75	7.75	7035.75	2.453	11.684	
7.76	7.76	7035.76	2.455	11.706	
7.77	7.77	7035.77	2.458	11.729	
7.78	7.78	7035.78	2.460	11.752	
7.79	7.79	7035.79	2.463	11.774	
7.80	7.80	7035.80	2.465	11.797	
7.81	7.81	7035.81	2.468	11.820	
7.82	7.82	7035.82	2.470	11.842	
7.83	7.83	7035.83	2.473	11.865	
7.84	7.84	7035.84	2.476	11.888	
7.85	7.85	7035.85	2.478	11.910	
7.86	7.86	7035.86	2.481	11.933	
7.87	7.87	7035.87	2.483	11.956	
7.88	7.88	7035.88	2.486	11.978	
7.89	7.89	7035.89	2.488	12.001	
7.90	7.90	7035.90	2.491	12.024	
7.91	7.91	7035.91	2.493	12.046	
7.92	7.92	7035.92	2.496	12.069	
7.93	7.93	7035.93	2.498	12.091	
7.94	7.94	7035.94	2.501	12.114	
7.95	7.95	7035.95	2.503	12.137	
7.96	7.96	7035.96	2.506	12.159	
7.97	7.97	7035.97	2.508	12.182	
7.98	7.98	7035.98	2.511	12.205	
7.99	7.99	7035.99	2.513	12.227	
8.00	8.00	7036.00	2.516	12.250	Spillway Crest / NWS
8.01	8.01	7036.01	2.522	12.276	
8.02	8.02	7036.02	2.527	12.301	
8.03	8.03	7036.03	2.533	12.327	
8.04	8.04	7036.04	2.538	12.353	
8.05	8.05	7036.05	2.544	12.379	
8.06	8.06	7036.06	2.549	12.404	
8.07	8.07	7036.07	2.555	12.430	
8.08	8.08	7036.08	2.560	12.456	
8.09	8.09	7036.09	2.566	12.481	
8.10	8.10	7036.10	2.571	12.507	
8.11	8.11	7036.11	2.577	12.533	
8.12	8.12	7036.12	2.582	12.558	

7.67	7.67	7121.67	1.541	6.352	
7.68	7.68	7121.68	1.543	6.365	
7.69	7.69	7121.69	1.544	6.377	
7.70	7.70	7121.70	1.546	6.389	
7.71	7.71	7121.71	1.548	6.402	
7.72	7.72	7121.72	1.550	6.414	
7.73	7.73	7121.73	1.552	6.427	
7.74	7.74	7121.74	1.554	6.439	
7.75	7.75	7121.75	1.556	6.451	
7.76	7.76	7121.76	1.557	6.464	
7.77	7.77	7121.77	1.559	6.476	
7.78	7.78	7121.78	1.561	6.488	
7.79	7.79	7121.79	1.563	6.501	
7.80	7.80	7121.80	1.565	6.513	
7.81	7.81	7121.81	1.567	6.525	
7.82	7.82	7121.82	1.568	6.538	
7.83	7.83	7121.83	1.570	6.550	
7.84	7.84	7121.84	1.572	6.562	
7.85	7.85	7121.85	1.574	6.575	
7.86	7.86	7121.86	1.576	6.587	
7.87	7.87	7121.87	1.578	6.599	
7.88	7.88	7121.88	1.579	6.612	
7.89	7.89	7121.89	1.581	6.624	
7.90	7.90	7121.90	1.583	6.636	
7.91	7.91	7121.91	1.585	6.649	
7.92	7.92	7121.92	1.587	6.661	
7.93	7.93	7121.93	1.589	6.674	
7.94	7.94	7121.94	1.590	6.686	
7.95	7.95	7121.95	1.592	6.698	
7.96	7.96	7121.96	1.594	6.711	
7.97	7.97	7121.97	1.596	6.723	
7.98	7.98	7121.98	1.598	6.735	
7.99	7.99	7121.99	1.600	6.748	
8.00	8.00	7122.00	1.602	6.760	
8.01	8.01	7122.01	1.606	6.776	
8.02	8.02	7122.02	1.611	6.792	
8.03	8.03	7122.03	1.616	6.808	
8.04	8.04	7122.04	1.620	6.824	
8.05	8.05	7122.05	1.625	6.840	
8.06	8.06	7122.06	1.630	6.856	
8.07	8.07	7122.07	1.635	6.872	
8.08	8.08	7122.08	1.639	6.888	
8.09	8.09	7122.09	1.644	6.904	
8.10	8.10	7122.10	1.649	6.920	
8.11	8.11	7122.11	1.654	6.936	
8.12	8.12	7122.12	1.658	6.952	

8.13	8.13	7036.13	2.588	12.584	
8.14	8.14	7036.14	2.593	12.610	
8.15	8.15	7036.15	2.599	12.636	
8.16	8.16	7036.16	2.604	12.661	
8.17	8.17	7036.17	2.610	12.687	
8.18	8.18	7036.18	2.615	12.713	
8.19	8.19	7036.19	2.620	12.738	
8.20	8.20	7036.20	2.626	12.764	
8.21	8.21	7036.21	2.631	12.790	
8.22	8.22	7036.22	2.637	12.815	
8.23	8.23	7036.23	2.642	12.841	
8.24	8.24	7036.24	2.648	12.867	
8.25	8.25	7036.25	2.653	12.893	
8.26	8.26	7036.26	2.659	12.918	
8.27	8.27	7036.27	2.664	12.944	
8.28	8.28	7036.28	2.670	12.970	
8.29	8.29	7036.29	2.675	12.995	
8.30	8.30	7036.30	2.681	13.021	
8.31	8.31	7036.31	2.686	13.047	
8.32	8.32	7036.32	2.692	13.072	
8.33	8.33	7036.33	2.697	13.098	
8.34	8.34	7036.34	2.703	13.124	
8.35	8.35	7036.35	2.708	13.150	
8.36	8.36	7036.36	2.714	13.175	
8.37	8.37	7036.37	2.719	13.201	
8.38	8.38	7036.38	2.725	13.227	
8.39	8.39	7036.39	2.730	13.252	
8.40	8.40	7036.40	2.736	13.278	
8.41	8.41	7036.41	2.741	13.304	
8.42	8.42	7036.42	2.747	13.329	
8.43	8.43	7036.43	2.752	13.355	
8.44	8.44	7036.44	2.757	13.381	
8.45	8.45	7036.45	2.763	13.407	
8.46	8.46	7036.46	2.768	13.432	
8.47	8.47	7036.47	2.774	13.458	
8.48	8.48	7036.48	2.779	13.484	
8.49	8.49	7036.49	2.785	13.509	
8.50	8.50	7036.50	2.790	13.535	
8.51	8.51	7036.51	2.796	13.561	
8.52	8.52	7036.52	2.801	13.586	
8.53	8.53	7036.53	2.807	13.612	
8.54	8.54	7036.54	2.812	13.638	
8.55	8.55	7036.55	2.818	13.664	
8.56	8.56	7036.56	2.823	13.689	
8.57	8.57	7036.57	2.829	13.715	
8.58	8.58	7036.58	2.834	13.741	

8.13	8.13	7122.13	1.663	6.968	
8.14	8.14	7122.14	1.668	6.984	
8.15	8.15	7122.15	1.672	7.000	
8.16	8.16	7122.16	1.677	7.016	
8.17	8.17	7122.17	1.682	7.032	
8.18	8.18	7122.18	1.687	7.048	
8.19	8.19	7122.19	1.691	7.064	
8.20	8.20	7122.20	1.696	7.080	
8.21	8.21	7122.21	1.701	7.096	
8.22	8.22	7122.22	1.706	7.112	
8.23	8.23	7122.23	1.710	7.128	
8.24	8.24	7122.24	1.715	7.144	
8.25	8.25	7122.25	1.720	7.160	
8.26	8.26	7122.26	1.724	7.176	
8.27	8.27	7122.27	1.729	7.192	
8.28	8.28	7122.28	1.734	7.208	
8.29	8.29	7122.29	1.739	7.224	
8.30	8.30	7122.30	1.743	7.240	
8.31	8.31	7122.31	1.748	7.256	
8.32	8.32	7122.32	1.753	7.272	
8.33	8.33	7122.33	1.758	7.288	
8.34	8.34	7122.34	1.762	7.304	
8.35	8.35	7122.35	1.767	7.320	
8.36	8.36	7122.36	1.772	7.336	
8.37	8.37	7122.37	1.777	7.352	
8.38	8.38	7122.38	1.781	7.368	
8.39	8.39	7122.39	1.786	7.384	
8.40	8.40	7122.40	1.791	7.400	
8.41	8.41	7122.41	1.795	7.416	
8.42	8.42	7122.42	1.800	7.432	
8.43	8.43	7122.43	1.805	7.448	
8.44	8.44	7122.44	1.810	7.464	
8.45	8.45	7122.45	1.814	7.480	
8.46	8.46	7122.46	1.819	7.496	
8.47	8.47	7122.47	1.824	7.512	
8.48	8.48	7122.48	1.829	7.528	
8.49	8.49	7122.49	1.833	7.544	
8.50	8.50	7122.50	1.838	7.560	
8.51	8.51	7122.51	1.843	7.576	
8.52	8.52	7122.52	1.847	7.592	
8.53	8.53	7122.53	1.852	7.608	
8.54	8.54	7122.54	1.857	7.624	
8.55	8.55	7122.55	1.862	7.640	
8.56	8.56	7122.56	1.866	7.656	
8.57	8.57	7122.57	1.871	7.672	
8.58	8.58	7122.58	1.876	7.688	

8.59	8.59	7036.59	2.840	13.766	
8.60	8.60	7036.60	2.845	13.792	
8.61	8.61	7036.61	2.851	13.818	
8.62	8.62	7036.62	2.856	13.843	
8.63	8.63	7036.63	2.862	13.869	
8.64	8.64	7036.64	2.867	13.895	
8.65	8.65	7036.65	2.873	13.921	
8.66	8.66	7036.66	2.878	13.946	
8.67	8.67	7036.67	2.884	13.972	
8.68	8.68	7036.68	2.889	13.998	
8.69	8.69	7036.69	2.894	14.023	
8.70	8.70	7036.70	2.900	14.049	
8.71	8.71	7036.71	2.905	14.075	
8.72	8.72	7036.72	2.911	14.100	
8.73	8.73	7036.73	2.916	14.126	
8.74	8.74	7036.74	2.922	14.152	
8.75	8.75	7036.75	2.927	14.178	
8.76	8.76	7036.76	2.933	14.203	
8.77	8.77	7036.77	2.938	14.229	
8.78	8.78	7036.78	2.944	14.255	
8.79	8.79	7036.79	2.949	14.280	
8.80	8.80	7036.80	2.955	14.306	
8.81	8.81	7036.81	2.960	14.332	
8.82	8.82	7036.82	2.966	14.357	
8.83	8.83	7036.83	2.971	14.383	
8.84	8.84	7036.84	2.977	14.409	
8.85	8.85	7036.85	2.982	14.435	
8.86	8.86	7036.86	2.988	14.460	
8.87	8.87	7036.87	2.993	14.486	
8.88	8.88	7036.88	2.999	14.512	
8.89	8.89	7036.89	3.004	14.537	
8.90	8.90	7036.90	3.010	14.563	
8.91	8.91	7036.91	3.015	14.589	
8.92	8.92	7036.92	3.021	14.614	
8.93	8.93	7036.93	3.026	14.640	
8.94	8.94	7036.94	3.031	14.666	
8.95	8.95	7036.95	3.037	14.692	
8.96	8.96	7036.96	3.042	14.717	
8.97	8.97	7036.97	3.048	14.743	
8.98	8.98	7036.98	3.053	14.769	
8.99	8.99	7036.99	3.059	14.794	
9.00	9.00	7037.00	3.064	14.820	
9.01	9.01	7037.01	3.070	14.846	
9.02	9.02	7037.02	3.075	14.871	
9.03	9.03	7037.03	3.081	14.897	
9.04	9.04	7037.04	3.086	14.923	

8.59	8.59	7122.59	1.881	7.704	
8.60	8.60	7122.60	1.885	7.720	
8.61	8.61	7122.61	1.890	7.736	
8.62	8.62	7122.62	1.895	7.752	
8.63	8.63	7122.63	1.899	7.768	
8.64	8.64	7122.64	1.904	7.784	
8.65	8.65	7122.65	1.909	7.800	
8.66	8.66	7122.66	1.914	7.816	
8.67	8.67	7122.67	1.918	7.832	
8.68	8.68	7122.68	1.923	7.848	
8.69	8.69	7122.69	1.928	7.864	
8.70	8.70	7122.70	1.933	7.880	
8.71	8.71	7122.71	1.937	7.896	
8.72	8.72	7122.72	1.942	7.912	
8.73	8.73	7122.73	1.947	7.928	
8.74	8.74	7122.74	1.952	7.944	
8.75	8.75	7122.75	1.956	7.960	
8.76	8.76	7122.76	1.961	7.976	
8.77	8.77	7122.77	1.966	7.992	
8.78	8.78	7122.78	1.970	8.008	
8.79	8.79	7122.79	1.975	8.024	
8.80	8.80	7122.80	1.980	8.040	
8.81	8.81	7122.81	1.985	8.056	
8.82	8.82	7122.82	1.989	8.072	
8.83	8.83	7122.83	1.994	8.088	
8.84	8.84	7122.84	1.999	8.104	
8.85	8.85	7122.85	2.004	8.120	
8.86	8.86	7122.86	2.008	8.136	
8.87	8.87	7122.87	2.013	8.152	
8.88	8.88	7122.88	2.018	8.168	
8.89	8.89	7122.89	2.022	8.184	
8.90	8.90	7122.90	2.027	8.200	
8.91	8.91	7122.91	2.032	8.216	
8.92	8.92	7122.92	2.037	8.232	
8.93	8.93	7122.93	2.041	8.248	
8.94	8.94	7122.94	2.046	8.264	
8.95	8.95	7122.95	2.051	8.280	
8.96	8.96	7122.96	2.056	8.296	
8.97	8.97	7122.97	2.060	8.312	
8.98	8.98	7122.98	2.065	8.328	
8.99	8.99	7122.99	2.070	8.344	
9.00	9.00	7123.00	2.075	8.360	
9.01	9.01	7123.01	2.079	8.376	
9.02	9.02	7123.02	2.084	8.392	
9.03	9.03	7123.03	2.089	8.408	
9.04	9.04	7123.04	2.093	8.424	

9.05	9.05	7037.05	3.092	14.949	
9.06	9.06	7037.06	3.097	14.974	
9.07	9.07	7037.07	3.103	15.000	
9.08	9.08	7037.08	3.108	15.026	
9.09	9.09	7037.09	3.114	15.051	
9.10	9.10	7037.10	3.119	15.077	
9.11	9.11	7037.11	3.125	15.103	
9.12	9.12	7037.12	3.130	15.128	
9.13	9.13	7037.13	3.136	15.154	
9.14	9.14	7037.14	3.141	15.180	
9.15	9.15	7037.15	3.147	15.206	
9.16	9.16	7037.16	3.152	15.231	
9.17	9.17	7037.17	3.158	15.257	
9.18	9.18	7037.18	3.163	15.283	
9.19	9.19	7037.19	3.168	15.308	
9.20	9.20	7037.20	3.174	15.334	
9.21	9.21	7037.21	3.179	15.360	
9.22	9.22	7037.22	3.185	15.385	
9.23	9.23	7037.23	3.190	15.411	
9.24	9.24	7037.24	3.196	15.437	
9.25	9.25	7037.25	3.201	15.463	
9.26	9.26	7037.26	3.207	15.488	
9.27	9.27	7037.27	3.212	15.514	
9.28	9.28	7037.28	3.218	15.540	
9.29	9.29	7037.29	3.223	15.565	
9.30	9.30	7037.30	3.229	15.591	
9.31	9.31	7037.31	3.234	15.617	
9.32	9.32	7037.32	3.240	15.642	
9.33	9.33	7037.33	3.245	15.668	
9.34	9.34	7037.34	3.251	15.694	
9.35	9.35	7037.35	3.256	15.720	
9.36	9.36	7037.36	3.262	15.745	
9.37	9.37	7037.37	3.267	15.771	
9.38	9.38	7037.38	3.273	15.797	
9.39	9.39	7037.39	3.278	15.822	
9.40	9.40	7037.40	3.284	15.848	
9.41	9.41	7037.41	3.289	15.874	
9.42	9.42	7037.42	3.295	15.899	
9.43	9.43	7037.43	3.300	15.925	
9.44	9.44	7037.44	3.305	15.951	
9.45	9.45	7037.45	3.311	15.977	
9.46	9.46	7037.46	3.316	16.002	
9.47	9.47	7037.47	3.322	16.028	
9.48	9.48	7037.48	3.327	16.054	
9.49	9.49	7037.49	3.333	16.079	
9.50	9.50	7037.50	3.338	16.105	

9.05	9.05	7123.05	2.098	8.440	
9.06	9.06	7123.06	2.103	8.456	
9.07	9.07	7123.07	2.108	8.472	
9.08	9.08	7123.08	2.112	8.488	
9.09	9.09	7123.09	2.117	8.504	
9.10	9.10	7123.10	2.122	8.520	
9.11	9.11	7123.11	2.127	8.536	
9.12	9.12	7123.12	2.131	8.552	
9.13	9.13	7123.13	2.136	8.568	
9.14	9.14	7123.14	2.141	8.584	
9.15	9.15	7123.15	2.145	8.600	
9.16	9.16	7123.16	2.150	8.616	
9.17	9.17	7123.17	2.155	8.632	
9.18	9.18	7123.18	2.160	8.648	
9.19	9.19	7123.19	2.164	8.664	
9.20	9.20	7123.20	2.169	8.680	
9.21	9.21	7123.21	2.174	8.696	
9.22	9.22	7123.22	2.179	8.712	
9.23	9.23	7123.23	2.183	8.728	
9.24	9.24	7123.24	2.188	8.744	
9.25	9.25	7123.25	2.193	8.760	
9.26	9.26	7123.26	2.197	8.776	
9.27	9.27	7123.27	2.202	8.792	
9.28	9.28	7123.28	2.207	8.808	
9.29	9.29	7123.29	2.212	8.824	
9.30	9.30	7123.30	2.216	8.840	
9.31	9.31	7123.31	2.221	8.856	
9.32	9.32	7123.32	2.226	8.872	
9.33	9.33	7123.33	2.231	8.888	
9.34	9.34	7123.34	2.235	8.904	
9.35	9.35	7123.35	2.240	8.920	
9.36	9.36	7123.36	2.245	8.936	
9.37	9.37	7123.37	2.250	8.952	
9.38	9.38	7123.38	2.254	8.968	
9.39	9.39	7123.39	2.259	8.984	
9.40	9.40	7123.40	2.264	9.000	
9.41	9.41	7123.41	2.268	9.016	
9.42	9.42	7123.42	2.273	9.032	
9.43	9.43	7123.43	2.278	9.048	
9.44	9.44	7123.44	2.283	9.064	
9.45	9.45	7123.45	2.287	9.080	
9.46	9.46	7123.46	2.292	9.096	
9.47	9.47	7123.47	2.297	9.112	
9.48	9.48	7123.48	2.302	9.128	
9.49	9.49	7123.49	2.306	9.144	
9.50	9.50	7123.50	2.311	9.160	

9.51	9.51	7037.51	3.344	16.131	
9.52	9.52	7037.52	3.349	16.156	
9.53	9.53	7037.53	3.355	16.182	
9.54	9.54	7037.54	3.360	16.208	
9.55	9.55	7037.55	3.366	16.234	
9.56	9.56	7037.56	3.371	16.259	
9.57	9.57	7037.57	3.377	16.285	
9.58	9.58	7037.58	3.382	16.311	
9.59	9.59	7037.59	3.388	16.336	
9.60	9.60	7037.60	3.393	16.362	
9.61	9.61	7037.61	3.399	16.388	
9.62	9.62	7037.62	3.404	16.413	
9.63	9.63	7037.63	3.410	16.439	
9.64	9.64	7037.64	3.415	16.465	
9.65	9.65	7037.65	3.421	16.491	
9.66	9.66	7037.66	3.426	16.516	
9.67	9.67	7037.67	3.432	16.542	
9.68	9.68	7037.68	3.437	16.568	
9.69	9.69	7037.69	3.442	16.593	
9.70	9.70	7037.70	3.448	16.619	
9.71	9.71	7037.71	3.453	16.645	
9.72	9.72	7037.72	3.459	16.670	
9.73	9.73	7037.73	3.464	16.696	
9.74	9.74	7037.74	3.470	16.722	
9.75	9.75	7037.75	3.475	16.748	
9.76	9.76	7037.76	3.481	16.773	
9.77	9.77	7037.77	3.486	16.799	
9.78	9.78	7037.78	3.492	16.825	
9.79	9.79	7037.79	3.497	16.850	
9.80	9.80	7037.80	3.503	16.876	
9.81	9.81	7037.81	3.508	16.902	
9.82	9.82	7037.82	3.514	16.927	
9.83	9.83	7037.83	3.519	16.953	
9.84	9.84	7037.84	3.525	16.979	
9.85	9.85	7037.85	3.530	17.005	
9.86	9.86	7037.86	3.536	17.030	
9.87	9.87	7037.87	3.541	17.056	
9.88	9.88	7037.88	3.547	17.082	
9.89	9.89	7037.89	3.552	17.107	
9.90	9.90	7037.90	3.558	17.133	
9.91	9.91	7037.91	3.563	17.159	
9.92	9.92	7037.92	3.569	17.184	
9.93	9.93	7037.93	3.574	17.210	
9.94	9.94	7037.94	3.579	17.236	
9.95	9.95	7037.95	3.585	17.262	
9.96	9.96	7037.96	3.590	17.287	

9.51	9.51	7123.51	2.316	9.176	
9.52	9.52	7123.52	2.320	9.192	
9.53	9.53	7123.53	2.325	9.208	
9.54	9.54	7123.54	2.330	9.224	
9.55	9.55	7123.55	2.335	9.240	
9.56	9.56	7123.56	2.339	9.256	
9.57	9.57	7123.57	2.344	9.272	
9.58	9.58	7123.58	2.349	9.288	
9.59	9.59	7123.59	2.354	9.304	
9.60	9.60	7123.60	2.358	9.320	
9.61	9.61	7123.61	2.363	9.336	
9.62	9.62	7123.62	2.368	9.352	
9.63	9.63	7123.63	2.372	9.368	
9.64	9.64	7123.64	2.377	9.384	
9.65	9.65	7123.65	2.382	9.400	
9.66	9.66	7123.66	2.387	9.416	
9.67	9.67	7123.67	2.391	9.432	
9.68	9.68	7123.68	2.396	9.448	
9.69	9.69	7123.69	2.401	9.464	
9.70	9.70	7123.70	2.406	9.480	
9.71	9.71	7123.71	2.410	9.496	
9.72	9.72	7123.72	2.415	9.512	
9.73	9.73	7123.73	2.420	9.528	
9.74	9.74	7123.74	2.425	9.544	
9.75	9.75	7123.75	2.429	9.560	
9.76	9.76	7123.76	2.434	9.576	
9.77	9.77	7123.77	2.439	9.592	
9.78	9.78	7123.78	2.443	9.608	
9.79	9.79	7123.79	2.448	9.624	
9.80	9.80	7123.80	2.453	9.640	
9.81	9.81	7123.81	2.458	9.656	
9.82	9.82	7123.82	2.462	9.672	
9.83	9.83	7123.83	2.467	9.688	
9.84	9.84	7123.84	2.472	9.704	
9.85	9.85	7123.85	2.477	9.720	
9.86	9.86	7123.86	2.481	9.736	
9.87	9.87	7123.87	2.486	9.752	
9.88	9.88	7123.88	2.491	9.768	
9.89	9.89	7123.89	2.495	9.784	
9.90	9.90	7123.90	2.500	9.800	
9.91	9.91	7123.91	2.505	9.816	
9.92	9.92	7123.92	2.510	9.832	
9.93	9.93	7123.93	2.514	9.848	
9.94	9.94	7123.94	2.519	9.864	
9.95	9.95	7123.95	2.524	9.880	
9.96	9.96	7123.96	2.529	9.896	

9.97	9.97	7037.97	3.596	17.313	
9.98	9.98	7037.98	3.601	17.339	
9.99	9.99	7037.99	3.607	17.364	
10.00	10.00	7038.00	3.612	17.390	
10.01	10.01	7038.01	3.617	17.426	
10.02	10.02	7038.02	3.623	17.462	
10.03	10.03	7038.03	3.628	17.498	
10.04	10.04	7038.04	3.633	17.534	
10.05	10.05	7038.05	3.638	17.571	
10.06	10.06	7038.06	3.644	17.607	
10.07	10.07	7038.07	3.649	17.643	
10.08	10.08	7038.08	3.654	17.679	
10.09	10.09	7038.09	3.660	17.715	
10.10	10.10	7038.10	3.665	17.751	
10.11	10.11	7038.11	3.670	17.787	
10.12	10.12	7038.12	3.676	17.823	
10.13	10.13	7038.13	3.681	17.859	
10.14	10.14	7038.14	3.686	17.895	
10.15	10.15	7038.15	3.692	17.932	
10.16	10.16	7038.16	3.697	17.968	
10.17	10.17	7038.17	3.702	18.004	
10.18	10.18	7038.18	3.708	18.040	
10.19	10.19	7038.19	3.713	18.076	
10.20	10.20	7038.20	3.718	18.112	
10.21	10.21	7038.21	3.724	18.148	
10.22	10.22	7038.22	3.729	18.184	
10.23	10.23	7038.23	3.734	18.220	
10.24	10.24	7038.24	3.740	18.256	
10.25	10.25	7038.25	3.745	18.293	
10.26	10.26	7038.26	3.750	18.329	
10.27	10.27	7038.27	3.756	18.365	
10.28	10.28	7038.28	3.761	18.401	
10.29	10.29	7038.29	3.766	18.437	
10.30	10.30	7038.30	3.771	18.473	
10.31	10.31	7038.31	3.777	18.509	
10.32	10.32	7038.32	3.782	18.545	
10.33	10.33	7038.33	3.787	18.581	
10.34	10.34	7038.34	3.793	18.617	
10.35	10.35	7038.35	3.798	18.654	
10.36	10.36	7038.36	3.803	18.690	
10.37	10.37	7038.37	3.809	18.726	
10.38	10.38	7038.38	3.814	18.762	
10.39	10.39	7038.39	3.819	18.798	
10.40	10.40	7038.40	3.825	18.834	
10.41	10.41	7038.41	3.830	18.870	
10.42	10.42	7038.42	3.835	18.906	

9.97	9.97	7123.97	2.533	9.912	
9.98	9.98	7123.98	2.538	9.928	
9.99	9.99	7123.99	2.543	9.944	
10.00	10.00	7124.00	2.548	9.960	Dam Crest

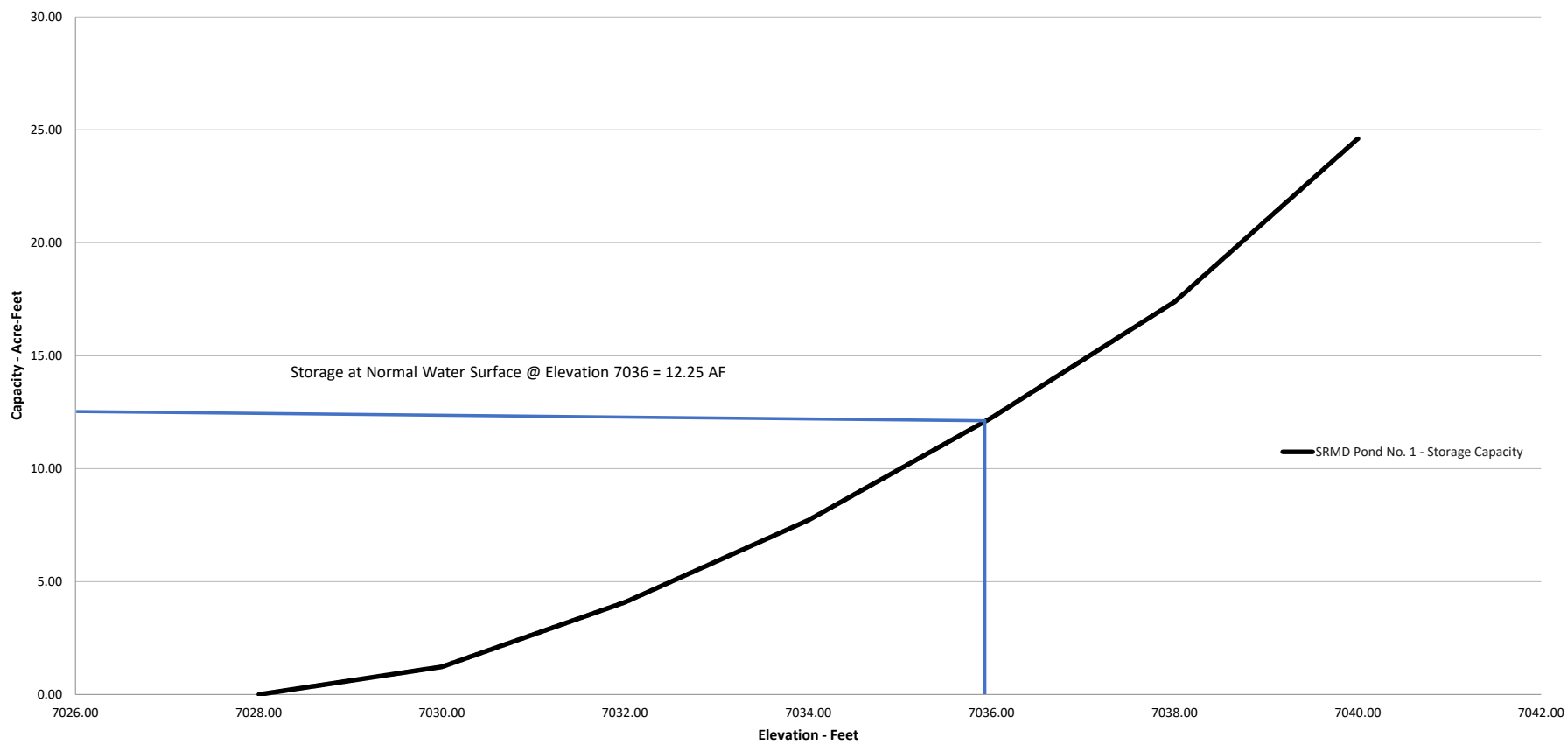
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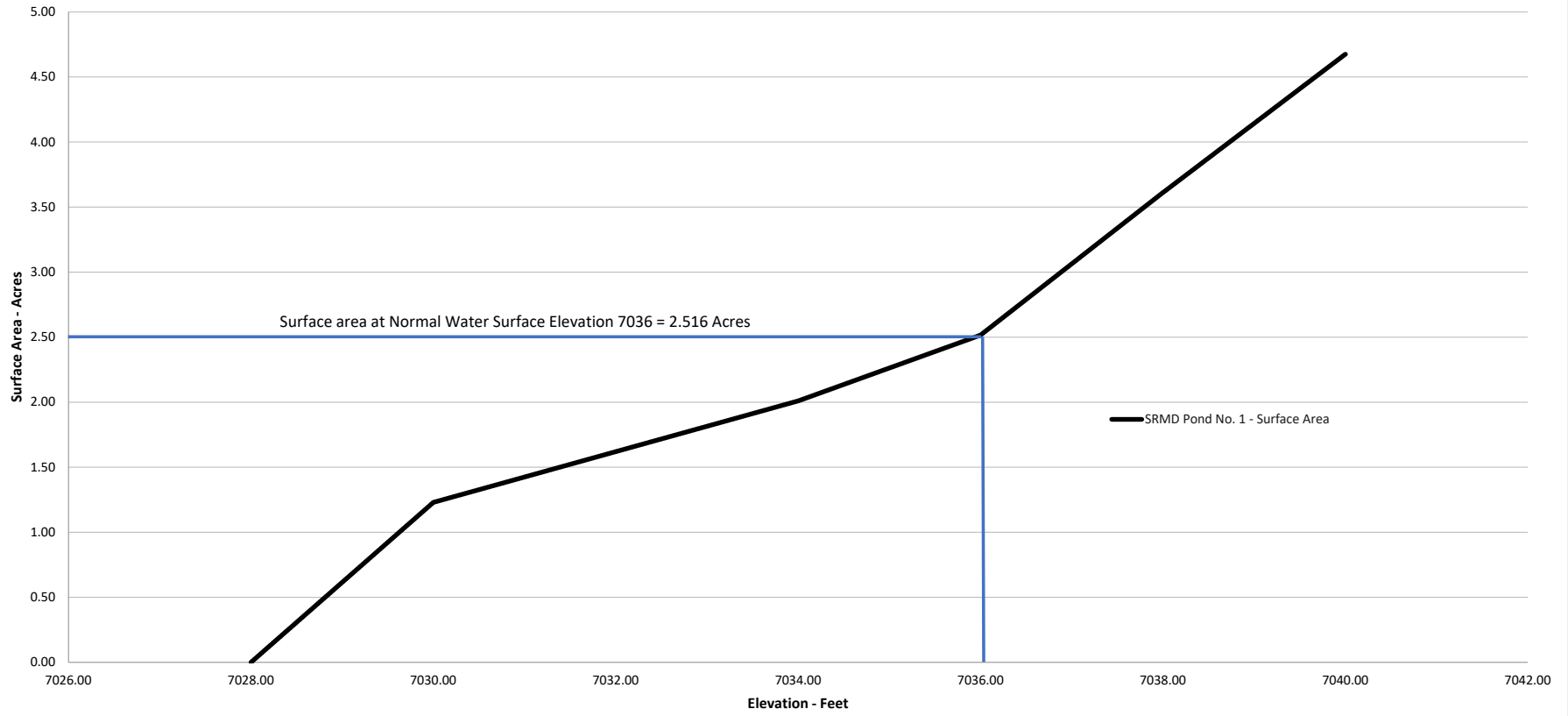
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12.00	12.00	7040.00	4.676	24.600	Dam Crest

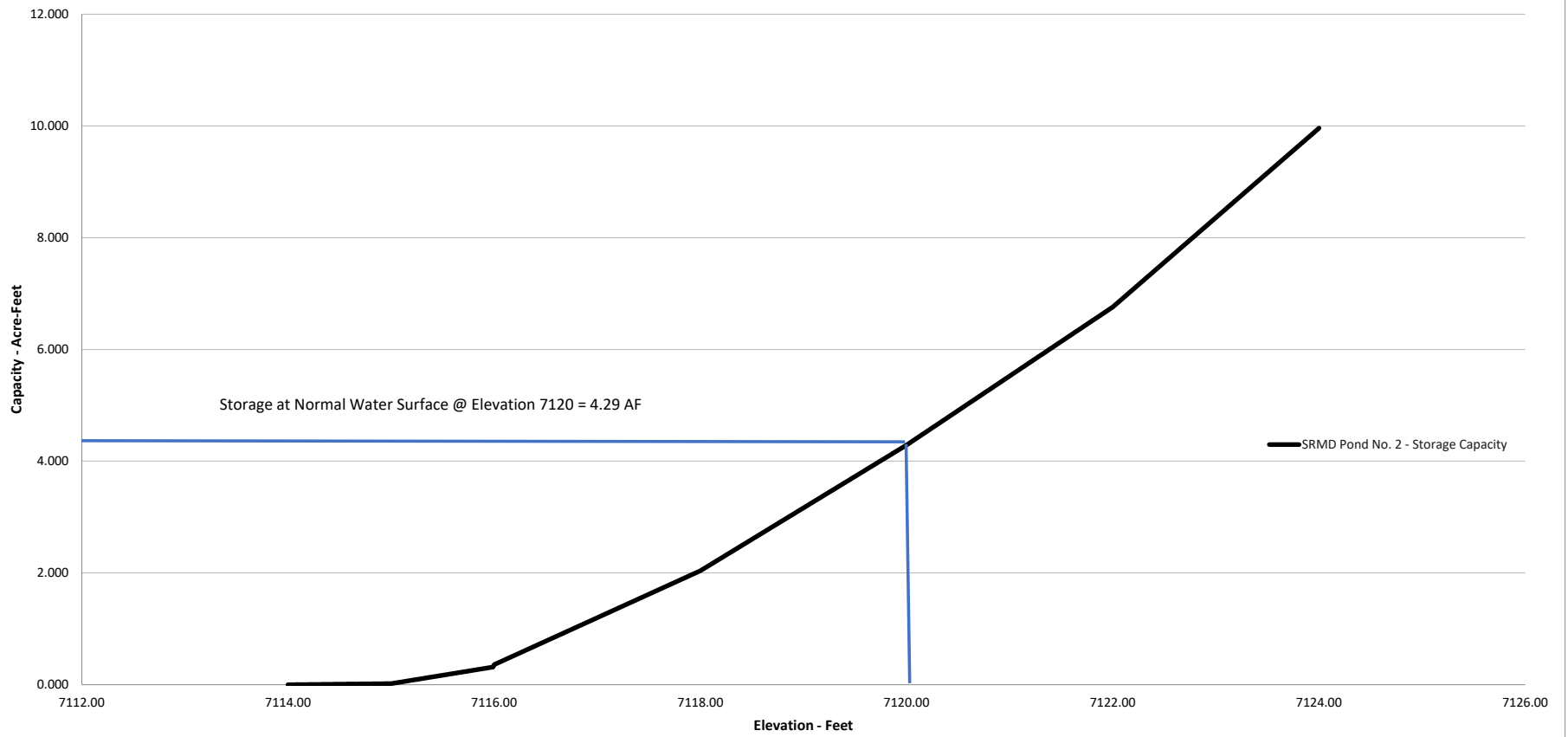
SRMD Pond No. 1 - Capacity



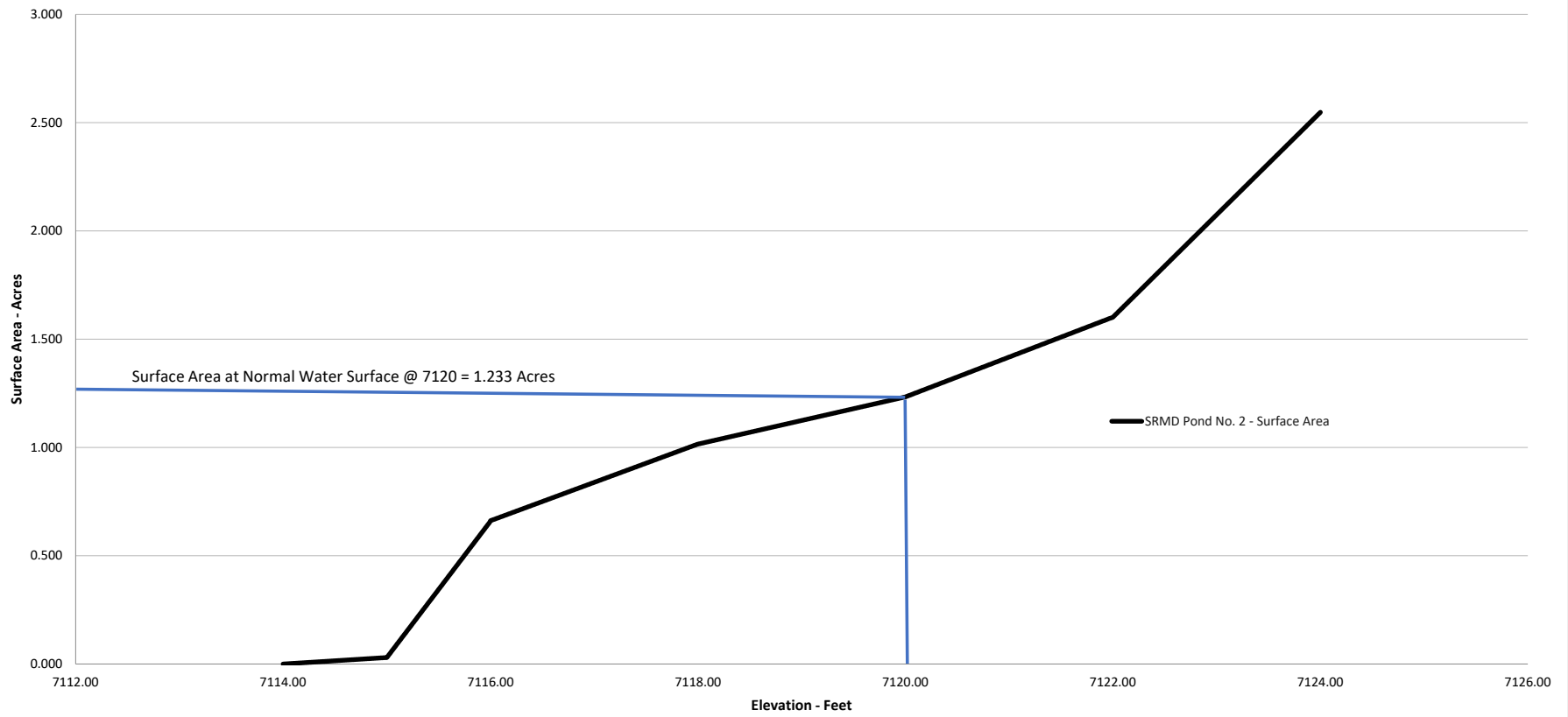
SRMD Pond No. 1 - Surface Area



SRMD Pond No. 2 - Storage Capacity



SRMD Pond No. 2 - Surface Area



DISTRICT COURT, WATER DIVISION NO. 2, COLORADO
Case No. 91CN35

COPY RECEIVED

RULING OF REFEREE

APR 10 1992
FILED IN OFFICE OF
STATE REFEREE
Clerk, District Court Water
Division No. 2, State of
Colorado

CONCERNING THE APPLICATION FOR WATER RIGHTS OF:
COLACO, LTD.,
IN EL PASO COUNTY.

APR 9 1992

M. J. Quinn
Clerk

Pursuant to Order of Referral filed and entered in the above case on October 24, 1991, the undersigned Water Referee, having investigated the matter of the Application on file herein, hereby makes the following findings and ruling thereon:

FINDINGS OF FACT

1. That the said Application was filed on October 24, 1991.
2. That the Water Clerk caused publication of such filing as provided by statute; that publication costs have been paid; that the time for filing Statements of Opposition expired on the last day of December, 1991, that one such has been filed by the City of Colorado Springs and that agreement has been reached by the parties on a proposed ruling.
3. That the said Application concerns a claim for four wells located in El Paso County, Colorado.
4. Name of Wells:
 - (a) Dawson Aquifer: Colaco DA-1.
 - (b) Denver Aquifer: Colaco DN-1.
 - (c) Arapahoe Aquifer: Colaco KA-1.
 - (d) Laramie-Fox Hills Aquifer: Colaco LFH-1.
5. Legal descriptions of locations of wells:
 - (a) Colaco DA-1: SE1/4 NE1/4, Section 34, T. 12 S. R. 65 W., 6th P.M., at a point 2780 feet from the south section line and 300 feet from the east section line.

- (b) Colaco DN-1: SE1/4 NE1/4, Section 34, T. 12 S., R. 65 W., 6th P.M., at a point 2740 feet from the south section line and 300 feet from the east section line.
- (c) Colaco KA-1: SE1/4 NE1/4, Section 34, T. 12 S., R. 65 W., 6th P.M. at a point 2690 feet from the south section line and 300 feet from the east section line.
- (d) Colaco LFH-1: SE1/4 NE1/4, Section 34, T. 12 S., R. 65 W., 6th P.M., at a point 2640 feet from the south section line and 300 feet from the east section line.

6. Source of Water: Dawson, Denver, Arapahoe and Laramie-Fox Hills Aquifers.

7. Date of Appropriation: Not applicable pursuant to C.R.S. 37-92-305(11).

8. The amount of water:

The estimated depths, below land surface, estimated pumping rates and estimated annual withdrawals for each well are as follows:

<u>Well Name</u>	<u>Estimated Depths</u>		<u>Pumping Rate</u>		<u>Annual</u>
	<u>Top</u>	<u>Bottom</u>	<u>CFS</u>	<u>(GPM)</u>	<u>Withdrawal</u>
					<u>Acre Feet</u>
Colaco DA-1	43	324	0.67	300	34
Colaco DN-1	350	1,245	0.67	300	76
Colaco KA-1	1,283	1,785	1.79	800	49
Colaco LFH-1	2,054	2,334	0.67	300	36

9. The use of the water:

Colaco DA-1, Colaco DN-1, Colaco KA-1, Colaco LFH-1 Wells: water withdrawn from these wells may be used, reused and successively used and otherwise disposed of for all purposes including: municipal, domestic, industrial, commercial, irrigation, stockwater, recreation, fish and wildlife, fire protection, sanitary purposes, storage, exchange, and augmentation. Augmentation use cannot be made until a court approved plan for augmentation is obtained or the State Engineer has approved a substitute supply plan or exchange. All subject to provisions of Paragraph 14 and 15 herein. In accordance with C.R.S. 37-90-137(9)(c), judicial approval of a plan for augmentation shall be required prior to the use of ground water from the Dawson Aquifer or from the Denver Aquifer. In the case of the Dawson aquifer such

augmentation plan shall provide for the replacement of actual stream depletions to the extent necessary to prevent any injurious effect, based on actual aquifer conditions in existence at the time of the decree. In the case of the Denver Aquifer such augmentation plan shall provide for the replacement to affected stream systems or system of a total amount of water equal to four (4) percent of the amount of water withdrawn on an annual basis and such additional amounts that may be required pursuant to Section 37-90-137(9)(c), C.R.S. (1986 Supp.).

10. Applicant claims all water under the 132 acres known as NE1/4 SE1/4, SE1/4 SE1/4, and SE1/4 NE1/4, Section 34, Township 12 South, Range 65 West of the 6th P.M., El Paso County, from the Dawson, Denver, Arapahoe and Laramie-Fox Hills Aquifers.

11. Allowed Average Annual Amount of Withdrawal

The criteria used in determining the allowed average annual amount of withdrawal of groundwater from each aquifer as specified in Paragraph 8, beneath the land described in Paragraph 10 are those criteria prescribed by C.R.S. 37-90-137(4) and the Rules and Regulations adopted by the State Engineer. The values used to calculate the allowed average annual amount of withdrawal are:

<u>Aquifer</u>	<u>No. of Acres</u>	<u>Saturated Materials (feet)</u>	<u>Specific Yield</u>	<u>Acre-Feet Per Year</u>
Dawson	132	128	20%	34
Denver	132	340	17%	76
Arapahoe	132	220	17%	49
Laramie-Fox Hills	132	183	15%	36

all in accordance with the Determinations of Facts issued by the State Engineer on January 15, 1992.

The values may be adjusted based on site specific data submitted pursuant to the Statewide Nontributary Groundwater Rules and subject to the retained jurisdiction provisions contained in Paragraph 17.

12. The ground water in the Arapahoe and Laramie-Fox Hills aquifers underlying the Subject Land is nontributary ground water as that term is defined in Section 37-90-103(10.5), 15 C.R.S. (as amended). The withdrawal of the total amount of nontributary ground water underlying the Subject Land will not cause material injury to any other vested water right, and will not, within one hundred years, deplete

the flow of a natural surface stream at an annual rate greater than one-tenth of one percent of the annual rate of withdrawal.

Pursuant to the State Engineer's Denver Basin Rules, the ground water underlying the Subject Land in the Dawson and Denver aquifers is "not nontributary" ground water as that term is used in Section 37-90-137(9)(c), C.R.S. Applicant is entitled to withdraw and use all previously unappropriated and legally available ground water from these aquifers. Well Colaco DN-1 is located more than one mile from the nearest point of contact between the Denver aquifer and any natural stream and its alluvium.

13. Construction of Wells

For all wells, applicants shall comply with the following conditions:

A. The entire length of the open bore hole except the surface casing shall be geophysically surveyed prior to casing and copies of the geophysical log submitted to the Division of Water Resources within 60 days of drilling. Applicant may provide a geophysical log from an adjacent well or test hole in accordance with the Statewide Rules and Regulations and acceptable to the State Engineer, which fully penetrates the formation, in satisfaction of the above requirement.

B. The ground water production shall be limited to the aquifers stated in Paragraph 8 herein as defined in the Denver Basin Rules and Regulations. Non-perforated casing must be installed and properly grouted to prevent withdrawal from or intermingling of water between other aquifers.

C. The permit number and name of the aquifer shall be permanently displayed on or near the well at a location easily accessible to water officials.

D. Applicant shall comply with C.R.S. Section 37-91-101, et seq. and the Rules and Regulations promulgated thereto and with such other requirements for constructing and equipping the well as the State Engineer may reasonably require.

E. Unless otherwise authorized by the Division Engineer, applicant shall install a totalizing flow meter on each well. The meter shall be installed according to the manufacturer's recommendations and shall be inspected at least annually, and promptly repaired or recalibrated as needed. If Applicant's meter becomes inoperable, it shall be repaired as soon as possible so that measurements can continue. Permission to operate the well without an operational meter must be obtained from the Division Engineer.

F. The Applicant shall keep records of the amount of water pumped and perform the calculations necessary to determine whether Applicant is in compliance with this decree. Applicant shall supply the Division Engineer with those records at least on an annual basis or upon request by the Division Engineer.

14. Limitation on Consumption of Nontributary Groundwater.

Applicant may not consume more than 98 percent of the annual quantity of the nontributary groundwater withdrawn from Colaco KA-1 Well and Colaco LFH-1 Well from the aquifer underlying the property in Paragraph 10. The relinquishment of 2 percent of the annual amount of water withdrawn to the stream system, as required by the Denver Basin Rules effective January 1, 1986, may be satisfied by any method selected by the Applicant, so long as Applicant can demonstrate to the reasonable satisfaction of the State Engineer prior to issuance of the permit that an amount equal to 2 percent of such annual withdrawals (by volume) will be relinquished to the stream system, by quantifiable return flows or otherwise.

15. Any right to reuse or successive use of water approved herein shall be in accordance with C.R.S. 37-82-106(2).

16. Well Permits

Well Permit No. 31778-F was issued to Colaco DN-1 Well on June 2, 1987. When the applicant is ready to construct Wells Colaco DA-1, Colaco KA-1, and Colaco LFH-1, an application for a well permit shall be filed pursuant to 37-90-137, C.R.S. The State Engineer shall consider the rights granted herein as valid. If Applicant fails to construct the well for which the permit was issued within the period of time authorized by statute, including legally authorized extension of any such time period, then when Applicant is ready to drill the well, Applicant shall file a second application for such well and the State Engineer may issue a well permit with restrictions no more burdensome than are found in this ruling.

17. Retained Jurisdiction.

The Court retains jurisdiction to provide for the adjustment of the annual amount of withdrawal to conform to actual local aquifer characteristics as determined from analyses of data obtained when the wells are constructed or test holes drilled. Within 60 days after the completion of such well(s) or test hole(s), the Applicant shall file with the State Engineer, and serve each of the parties who have appeared herein, copies of the well logs from such well(s) or test hole(s). Any person including the State Engineer can

invoke the Court's retained jurisdiction to make a Final Determination of Water Right. The State Engineer can invoke the Court's retained jurisdiction to make a Final Determination of Water Right. The State Engineer, upon notification of retained jurisdiction, shall utilize data available to him and make a final Determination of Water Rights Finding within 4 months and submit same to the Water Court. If no protest to such a filing is made within 60 days, the Final Determination of Water Right shall be incorporated into the decree by the Water Court. In the event of a protest, or in the event the State Engineer makes no determination within 4 months, such final determination shall be made by the Water Court after notice and hearing.

18. The rights to nontributary ground water sought by this Application are not "Conditional Water Rights" and Findings of Reasonable Diligence are not required. Pursuant to Section 37-90-305(11), 15 C.R.S. (as amended), the rights to nontributary ground water requested from the Arapahoe and Laramie-Pox Hills aquifers are vested property rights, not conditional water rights, and the requirements of Section 37-92-102(6), 301(4), and 601, 15 C.R.S. (as amended) pertaining to conditional water rights and the requirement for findings of reasonable diligence are inapplicable to rights to such ground water.

The "not nontributary" ground water in the Dawson and Denver aquifers is, pursuant to Section 37-90-137(4) and (9), to be administered over a one hundred year aquifer life and not pursuant to any doctrine of priority of appropriation. For that reason, none of the policies or purposes of conditional water rights and the filings of reasonable diligence associated with the priority of appropriation are applicable to the rights to the "not nontributary" ground water requested herein. As a matter of law, even though the ground water requested from the "not nontributary" Dawson and Denver aquifers has not been diverted and applied to beneficial use, it is a vested property right, and that the requirements of Sections 37-92-102(6), 301(4), and 601, C.R.S. pertaining to conditional water rights and findings of reasonable diligence are inapplicable to the "not nontributary" ground water. The failure to obtain periodic findings of reasonable diligence shall not result in a loss, forfeiture, or abandonment of Applicant's rights to "not nontributary" ground water from the Dawson or Denver aquifers.

19. That Applicant has furnished acceptable proof as to claims made.

IT IS, THEREFORE, ORDERED AS FOLLOWS: That Applicant be, and is hereby, awarded the underground water rights for Colaco DA-1, Colaco DN-1, Colaco KA-1, and Colaco LFH-1 Wells as set forth herein.

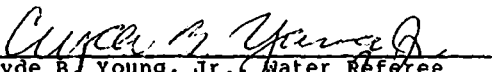
NAME AND ADDRESS: Colaco, Ltd., a Colorado Corporation
William A. Fischer, President
1790 Pinnacle Ridge Lane
Colorado Springs, CO 80919

IT IS FURTHER ORDERED that Applicant shall install and maintain such water measurement devices, recording devices, content gauges and inlet and outlet measurement and recording devices, as the case may be, as are deemed essential by the Office of the State Engineer, and the same shall be installed and operated in accordance with instructions from said Office.

IT IS FURTHER ORDERED that copies of this ruling shall be mailed as provided by statute.

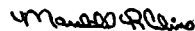
Dated and filed with the Water Clerk this 9th day of April, 1992.

BY THE REFEREE:


Clyde B. Young, Jr., Water Referee
Water Division No. 2
State of Colorado

Filed in the office of the
Clerk, District Court Water
Division No. 2, State of
Colorado

APR 9 1992



Clerk

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Filed in the office of the
Clerk, District Court, Water
Division No. 2, State of
Colorado

DISTRICT COURT, WATER DIVISION 2, COLORADO

CASE NO. 91CW35

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MAY 5 1992

JUDGMENT AND DECREE

CONCERNING THE APPLICATION FOR WATER RIGHTS OF:

Clerk

COLACO, LTD.

IN EL PASO County.

THE COURT FINDS That no protest has been filed to the Ruling of the Water Referee within the time provided by law, and that said Ruling should be confirmed, approved and adopted.

IT IS, THEREFORE, ORDERED, ADJUDGED AND DECREED That the Ruling of Referee entered on April 9, 1992, be and is incorporated herein by reference and is confirmed, approved and adopted as the judgment of this Court.

*Dated: May 5, 1992.



BY THE COURT:

[Handwritten Signature]

JOHN R. TRACEY, WATER JUDGE

CENTRAL RECORDS

DISTRICT COURT, WATER DIVISION NO. 2, STATE OF COLORADO OCT 29 1986

Case No. 86-CW-18

Russell J. Lyons

FINDINGS OF FACT, CONCLUSIONS OF LAW, JUDGMENT AND DECREE Clerk

CONCERNING THE APPLICATION FOR NONTRIBUTARY GROUND WATER RIGHTS OF THE FIRST INTERSTATE BANK OF DENVER N.A., CARLA W. LEWIS, AND SAMUEL S. SHERMAN AS COTRUSTEES UNDER THE LIFE INSURANCE TRUST OF THOMAS M. DINES FROM THE ARAPAHOE FORMATION, EL PASO COUNTY.

THIS MATTER, having come on ~~for hearing before the~~ Court this 29 day of Oct., 1986 upon the application of The First Interstate Bank of Denver N.A., Carla W. Lewis, and Samuel S. Sherman as Cotrustees under the Life Insurance Trust of Thomas M. Dines ("Applicants") and the Court having considered the pleadings filed and the evidence presented, and being fully advised in the premises, hereby enters the following Findings of Fact, Conclusions of Law, and Judgment and Decree: *get*

FINDINGS OF FACT

1. The Applicants are The First Interstate Bank of Denver N.A., Carla W. Lewis, and Samuel S. Sherman as Cotrustees under the Life Insurance Trust of Thomas M. Dines whose address is First Interstate Bank of Denver, 633 Seventeenth Street, Denver, Colorado 80202, Attn: Jack Alexander. Applicants filed the application in this case styled Application For Nontributary Ground Water From The Arapahoe Formation (the "Application") on March 28, 1986, seeking an adjudication of nontributary ground water rights from the Arapahoe Formation underlying lands owned by Applicants in El Paso County.

2. Timely and adequate notice of the Application was published as required by statute, and the Court has jurisdiction over the subject matter of this proceeding and over all parties affected hereby, whether they have appeared or not. None of the lands or water rights involved in this case are within the boundaries of a designated groundwater basin.

3. A timely statement of opposition was filed by JVRC, Inc. No other statements of opposition were filed within the time provided by law nor did any other parties enter their appearance or intervene in these proceedings.

4. The Water Referee by Order dated July ⁹ 19, 1986, under Section 37-92-303(2), C.R.S., rereferred the Application to the Water Judge for all further proceedings. 225

5. The State Engineer issued a Determination of Facts on the Application, dated July 28, 1986, which has been filed with the Court. The Division Engineer adopted the Determination of Facts as his recommendations on August 8, 1986. The Determination of Facts and the findings contained therein have been reviewed and considered by this Court in accordance with Section 37-92-305(6), C.R.S.

6. Applicants seek an adjudication of rights to nontributary ground water from the Arapahoe Formation beneath 1,410 acres of land in El Paso County which are described in Exhibit A and depicted on the map attached as Exhibit B, both of which are incorporated herein by this reference (the "Subject Lands"). Applicants are the owners of the Subject Lands and have the right to withdraw and use the waters from the Arapahoe Formation underlying those lands. The waters claimed herein may be withdrawn through the proposed wells described in Paragraph 7 below and through such additional, replacement and supplemental wells as may be necessary to withdraw all of the water in the Arapahoe Formation underlying the Subject Lands without causing material injury to any vested water right whose source of supply is the Arkansas River and any of its tributaries or any other natural stream, or any ground water tributary thereto, and the Applicants have so proven.

7. Applicants will divert the waters claimed herein from the Arapahoe Formation through Dines Wells KA-1, KA-2, KA-3, and KA-4 more particularly described as follows:

Well Name: Dines Well KA-1

- (a) In the SE 1/4 of the NW 1/4 of Section 27, Township 12 South, Range 65 West of the 6th P.M., 2500 feet from the North Section line and 2200 feet from the West Section line, in El Paso County.
- (b) Depth: 1900 feet.
- (c) Source: Nontributary Arapahoe Formation.
- (d) Pumping rate: 150 gpm.

(e) Annual quantity: 240 acre-feet.*

Well Name: Dines Well KA-2

(a) Location: In the SW 1/4 of the SW 1/4 of Section 27, Township 12 South, Range 65 West of the 6th P.M., 200 feet from the South Section line and 200 feet from the West Section line, in El Paso County.

(b) Depth: 1800 feet.

(c) Source: Nontributary Arapahoe Formation.

(d) Pumping rate: 150 gpm.

(e) Annual quantity: 240 acre-feet.*

Well Name: Dines Well KA-3

(a) Location: In the NW 1/4 of the SE 1/4 of Section 33, Township 12 South, Range 65 West of the 6th P.M., 1500 feet from the South Section line and 2100 feet from the East Section line, in El Paso County.

(b) Depth: 1700 feet.

(c) Source: Nontributary Arapahoe Formation.

(d) Pumping rate: 150 gpm.

(e) Annual quantity: 240 acre-feet.*

Well Name: Dines Well KA-4

(a) Location: In the NE 1/4 of the SW 1/4 of Section 34, Township 12 South, Range 65 West of the 6th P.M., 1400 feet from the South Section line and 2100 feet from the West Section line, in El Paso County.

(b) Depth: 1700 feet.

(c) Source: Nontributary Arapahoe Formation.

(d) Pumping rate: 150 gpm.

(e) Annual quantity: 240 acre-feet.

- * Not to exceed in total the amount available to Applicants from the Arapahoe Formation pursuant to § 37-90-137(4), C.R.S. and the provisions of this decree.

8. Pursuant to §37-90-137(4), C.R.S., five hundred seventy-five (575) acre-feet of water per year are available to Applicants from the Arapahoe Formation underlying the Subject Lands. The average thickness of saturated sand of the Arapahoe Formation underlying the Subject Lands is 240 feet but the final determination on actual saturated sand thickness will be determined when the wells are drilled, and the amount decreed herein may be subsequently adjusted in accordance with that saturated sand thickness as provided in Paragraph 29 below. The specific yield of the Arapahoe Formation is 17% in and beneath the Subject Lands. This finding is specific to the property involved and does not indicate or in any way reflect upon proper values for the subject aquifer elsewhere. All the water in the Arapahoe Formation underlying the Subject Lands remains available for withdrawal by the wells decreed herein.

9. The State Engineer in his Determination of Facts found that 581 acre-feet per year were available for appropriation through the subject wells. The State Engineer's determination is based on a finding that only 1395 acres of the Subject Lands are available for appropriation, and based on saturated sand thicknesses of 245 feet and 250 feet for different parts of the Subject Lands and a specific yield of 17% for the Arapahoe Formation. The State Engineer also found that of the total 581 acre-feet per year of water available for appropriation, 569 acre-feet was nontributary and 12 acre-feet was not nontributary. The 12 acre-feet per year the State Engineer found as not nontributary underly 37 acres of Section 32 of the Subject Lands. Applicant has shown by a preponderance of the evidence that there are no existing wells with a right to water from the Arapahoe Formation underlying the Subject Lands and that the water underlying 1410 acres is available for appropriation by Applicants. The Court also finds that the withdrawals through Applicants' proposed wells of the water claimed herein including the amount of water underlying the 37 acres in Section 32 is nontributary. The proposed wells will not, at their location and withdrawing the amounts decreed herein, within one hundred years deplete the flow of any natural stream at a rate greater than one-tenth of one percent of the annual rate of withdrawal. Applicants' engineer ~~has testified~~ that 575 acre-feet per year is available for appropriation calculated with a saturated sand thickness of 240 feet for the

Arapahoe Formation. Subject to the final determination of saturated sand thickness based on the information derived from the drilling of the wells, Applicants will use 240 feet for the saturated sand thickness of the Arapahoe Formation beneath the Applicants' property.

10. The source of water for the proposed wells is nontributary as defined in Section 37-90-103 (10.5), C.R.S. The proposed withdrawals through Dines Wells KA-1, KA-2, KA-3, and KA-4 in the amount of 575 acre-feet per year, or in any lesser or greater amount determined under Paragraph 29, will not, within one hundred years, deplete the flow of any natural stream or its alluvium or any ground water tributary thereto at an annual rate greater than one-tenth of 1% of the annual rate of withdrawal.

11. The waters of the Arapahoe Formation that are the subject of the appropriation claimed herein will be, and Applicants intend that they be used, and Applicants shall have the right of succession of uses, for municipal, domestic, commercial, fire protection, industrial, residential, recreation, irrigation, exchange, replacement of depletions, augmentation, livestock and agricultural uses. The water will be produced for immediate application to beneficial use and for storage and subsequent application to beneficial use. Subject only to the provisions of Paragraph 31, Applicants shall have the right to make any reuse, successive use or disposition of the developed water claimed herein until totally consumed free of any limitations, restrictions, or requirements as to the place of use, amount of discharge or location of discharge after such reuse, successive use or disposition in accord with Section 37-82-106, C.R.S.

12. All of the requirements of C.R.S. § 37-90-137(4), in effect on this date have been complied with, and the issuance of permits for the subject wells is justified and those permits will be issued as described in Paragraph 34 below.

13. Applicants will relinquish the right to consume after use, reuse, and successive use 2% of the amount of ground water withdrawn through Dines Wells KA-1, KA-2, KA-3 and KA-4 and any additional, supplemental, or replacement, wells without regard to dominion or control of the ground water so relinquished.

14. Applicants seek a decree designating all of the wells described in Paragraph 7 above as original and alternate points of diversion for each other permitting the withdrawal of up to the full cumulative amount by flow rate and volume of water which may be lawfully withdrawn from any one or more of those wells. The Court finds that no material injury will result to the owners or persons entitled to use water under any vested

water right or decreed conditional water right by the granting of this request, and it is hereby granted.

15. Applicants may withdraw more water than the amounts set forth in Paragraph 8 so long as the sum of the withdrawals from all wells decreed herein (as that sum may subsequently be adjusted pursuant to Paragraph 29 hereof) does not exceed the product of the number of years since the date of this decree, times the annual rate of one percent (1%) of the total amount of unappropriated water recoverable from the Arapahoe Formation.

16. Applicants have requested that the Court determine that Applicants have the right to withdraw all of the unappropriated water from the Arapahoe Formation lying below their land and to increase their annual appropriations based upon the local aquifer characteristics established through information obtained from the drilling of the wells upon notice to all parties and approval by the Court, without amending the Application or republishing. The Court finds that there has been full and adequate notice of these claims and Applicants will be entitled to an adjustment under the provisions of Paragraph 29 below on the amount of water to which the wells are entitled.

17. Applicants may construct any well within 200 feet of the described locations without amending the Application or reopening this decree.

18. With respect to the permits to be issued by the State Engineer's office for construction of the wells described in Paragraph 7 herein, the provisions of Paragraph 34 below are and have been justified and shall apply.

19. As of March 3, 1986, Applicants have intended to claim the waters sought in the Application and have so demonstrated by open and physical acts on the ground and by the completion of an engineering study and hydrogeological investigation on the water available for appropriation in the Arapahoe Formation. Applicants have demonstrated and manifested an intent to appropriate the waters claimed herein by giving sufficient notice thereof, all in accordance with law. The evidence presented shows that the Applicants intend to appropriate the waters claimed herein, that such intent to appropriate has been adequately demonstrated, and that Applicants are entitled to a decree for the water rights herein decreed.

20. There is unappropriated water available for withdrawal by the structures decreed herein and the vested water rights of others will not be materially injured by the appropriations as decreed. Only that quantity of water underlying the Subject Lands has been considered to be

unappropriated; the minimum useful life of the Arapahoe Formation is at least one hundred (100) years, assuming no substantial artificial recharge within one hundred (100) years; and no material injury to vested water rights will result from the issuance of or exercise of the permits for the subject wells.

CONCLUSIONS OF LAW

21. The Court has jurisdiction to determine Applicants' rights to nontributary ground water pursuant to Sections 37-90-137(6), 37-92-203(1), and 37-92-302 through 305, C.R.S. (Supp. 1985). The procedures and requirements of these statutes have been complied with, full and adequate notice has been given, and no additional notice is required.

22. The Court concludes as a matter of law that the Application herein is one contemplated by law. The Application for a decree confirming Applicants' right to divert and use ground water from the Arapahoe Formation beneath the Subject Lands, pursuant to C.R.S. § 37-90-137(4), should be granted, subject to the provisions of this decree. The rights confirmed by this decree are vested property rights. The amount of water confirmed in this decree is that quantity of water underlying the Subject Lands and the annual withdrawals are based on an aquifer life of one hundred years.

23. The Court concludes that the rights to ground water determined herein are not conditional water rights and subsequent showings or findings of reasonable diligence under Section 37-92-301(4), C.R.S., are inapplicable and need not be made. Accordingly, each of the water rights adjudicated herein is a final vested property right.

24. Applicants are entitled as a matter of law to use, reuse, and successively use to extinction and dispose of all nontributary ground water decreed herein pursuant to Section 37-82-106, C.R.S. (Supp. 1985) subject only to a 2% relinquishment of Applicants' right to total consumption. Failure to use, reuse or recapture such water, including return flows, shall not be deemed a forfeiture or abandonment of the right to such use, reuse or recapture.

25. The Court shall retain jurisdiction over this matter to make adjustments to the amount of water available for withdrawal annually to conform to the actual aquifer characteristics encountered upon the drilling of the wells. This retained jurisdiction may be invoked only by the parties under Paragraph 36.

JUDGMENT AND DECREE

26. The Findings of Fact and Conclusions of Law set forth in Paragraphs 1-25, above are incorporated herein by this reference.

27. The Application for determination of water rights for the subject wells is granted subject to the following limitations.

28. A right to five hundred seventy-five (575) acre-feet of nontributary ground water per year is decreed and confirmed in Applicants pursuant to § 37-90-137(4), C.R.S., for Dines Wells KA-1, KA-2, KA-3, and KA-4, from the Arapahoe Formation for municipal, domestic, commercial, fire protection, industrial, residential, recreation, irrigation, exchange, replacement of depletions, augmentation, livestock and agricultural uses. Applicants shall have the right to recapture, reuse, and dispose of the water developed by the subject wells. Applicants shall have the right to withdraw water for immediate application to beneficial use and for storage and subsequent application to beneficial use and shall have the right to make any reuse, successive use or disposition of the developed water claimed herein to extinction free of any limitations, restrictions, or requirements as to the place of use, amount of discharge or location of discharge after such reuse, successive use or disposition in accord with Section 37-82-106, C.R.S. subject only to the provisions of Paragraph 31 below. The water may be withdrawn through the wells described in Paragraph 7 above and through such additional wells as may be required in order to maintain the annual appropriation as determined herein. The proposed withdrawals through Dines Wells KA-1, KA-2, KA-3, and KA-4 and any additional, supplemental, or replacement wells in the amount of 575 acre-feet per year, or in any additional amounts of water from the Arapahoe Formation underlying the Subject Lands, will not, within one hundred years, deplete the flow of any natural stream or its alluvium or any ground water tributary thereto at an annual rate greater than one-tenth of 1% of the annual rate of withdrawal, and those waters are nontributary to any natural surface stream, its alluvium, and any ground water tributary thereto, and the proposed withdrawals will not result in material injury to vested water rights.

29. The total amount of water to which Applicants are entitled and which is available to Applicants from the Arapahoe Formation beneath the Subject Lands shall be 575 acre-feet per year or the lesser or greater amount of water each such well is entitled to as subsequently determined from the saturated sand thickness of the Arapahoe Formation determined from the geophysical data obtained from the construction of the wells. Geophysical logs shall be taken in accordance with the applicable

rules promulgated by the State Engineer. In making the determination of the final amount of water to which the subject wells are entitled, the following criteria shall apply:

(a) Saturated sand thickness shall be defined as the cumulative thickness of saturated materials as shown on the geophysical logs for each well applying standard accepted geophysical log interpretation methodology;

(b) The specific yield for the Arapahoe Formation shall be 17%;

(c) The water in the Arapahoe Formation underlying the 1410 acres of the Subject Lands shall be considered available for appropriation by the wells decreed herein.

After the completion of the wells subject to this decree, Applicants shall submit the geophysical logs and any other geophysical information obtained from the drilling of the wells to the State Engineer and to the other parties in this action together with a statement from Applicants on the final actual saturated sand thickness and final annual appropriation for each well as determined by Applicants. Within 60 days from the date on which Applicants mail copies of the geophysical logs and statement to the parties herein, any party may petition this Court to invoke the Court's retained jurisdiction under Paragraph 36 of this decree to reconsider the saturated sand thickness of the Arapahoe Formation underlying the Subject Lands for the purpose of adjusting the total entitlement of water to the wells decreed herein. Those proceedings shall be limited exclusively to the issue of saturated sand thickness. If the Court's retained jurisdiction is not invoked within the time prescribed in this Paragraph, the respective amounts set forth in Applicants' statement as the final annual entitlement to each well shall be final, which amount shall be confirmed as final by order of the Court upon Applicants' motion to the Court setting forth facts showing compliance with this Paragraph.

30. The issuance by the Colorado Division of Water Resources pursuant to Colorado Revised Statutes, Section 37-90-137(4) of permits to construct the subject wells is justified and the Division of Water Resources is directed to issue the permits in accordance with Paragraph 34 below. Each of the requirements of the statute has been complied with. Unappropriated waters are available for appropriation from the Arapahoe Formation beneath the Subject Lands and the proposed withdrawals will not result in material injury to other vested water rights.

31. Applicants shall relinquish the right to consume, after use, reuse, and successive use 2% of the water withdrawn through Dines Wells KA-1, KA-2, KA-3 and KA-4 and any additional, supplemental, or replacement wells without regard to dominion or control of the ground water so relinquished.

32. All of the wells described in Paragraph 7 may be used as original and alternate points of diversion for each other permitting the withdrawal by flow rate and volume of up to the full cumulative amount of water which may be lawfully withdrawn from all of those wells from any one or more of those wells. The Court finds that no material injury will result to the owners or persons entitled to use water under any vested water right or decreed conditional water right by the granting of this request, and it is hereby granted.

33. Applicants may withdraw more water than the final annual appropriation for each well so long as the sum of the withdrawals from all wells decreed herein (as that sum may subsequently be adjusted pursuant to Paragraph 29 hereof) does not exceed the product of the number of years since the date of issuance of this decree, times the annual rate of one percent (1%) of the total amount of unappropriated water recoverable from the Arapahoe Formation.

34. With respect to the permits to be issued by the State Engineer's office for construction of the wells described in Paragraph 7 herein, the following provisions shall apply.

(a) The State Engineer shall consider the rights granted herein as valid and shall consider the water sought by Applicants as taken and appropriated by Applicants.

(b) When Applicants are prepared to drill a well described in this decree, Applicants shall apply to the State Engineer for a well permit and that permit shall be issued within 60 days under terms and conditions no less stringent than those set forth in this decree with the conditions for equipping and constructing the well as are specified in Paragraph 35 herein. In the event that a well permit expires prior to the construction of the well and the application of water to beneficial use, Applicants may apply for a new well permit and the State Engineer shall within 60 days issue a new well permit with the same terms and conditions as the permit that expired.

(c) Applicants shall submit well permit applications to the State Engineer's office for any replacement, supplemental or additional wells.

(d) Any well permitted pursuant to this decree which is drilled within 200 feet of the decreed location shall be deemed to have been drilled at the decreed well location and shall not require application for a new or amended well permit.

(e) In determining whether good cause exists for granting a request by Applicants to extend well permits for nontributary wells for one or more additional one-year periods pursuant to Section 37-90-137(3)(a)(II), C.R.S. (1985 Supp.), the State Engineer shall recognize that each well decreed herein, and such additional wells as are required from time to time to fully recover the annual appropriation herein, are part of a single integrated water supply system to be constructed over a phased period of time. So long as Applicants still desire to use the groundwater the well permits shall be extended.

(f) Prior to constructing any additional wells, Applicants shall submit well permit applications to the State Engineer. In considering such permit applications, the State Engineer shall be governed by Section 37-90-137(10), C.R.S. (1985 Supp.) and the provisions of this decree. Any such permitting action may be reviewed by this Court pursuant to Section 37-92-305(6), C.R.S. (1985 Supp.).

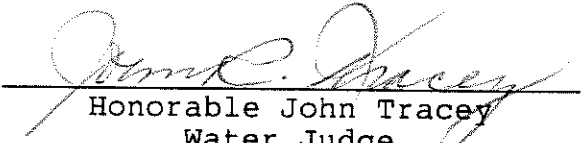
(g) For the purpose of well permit applications, Applicants need not submit separate proof, apart from the terms of this decree, of matters which have been determined herein.

35. Applicants shall geophysically log the entire bore hole of each well prior to the installation of casing. Such logs shall be taken in accordance with the applicable rules promulgated by the State Engineer. In constructing and maintaining any well which will withdraw water from the Arapahoe Formation under this decree, the Applicants shall seal off and encase the well with an impervious lining at all levels, except the level of the Arapahoe Formation, to prevent withdrawal of and mixing of groundwater in other aquifers and a totalizing flow meter shall be installed on each well. After construction the Applicants shall attach an identification tag to the well specifying the name of the well, the permit number and the aquifer from which the water is withdrawn. Applicants shall maintain records of the amounts pumped from each well on a monthly basis and such records shall be provided to the Division Engineer or the State Engineer on request.

36. This Court retains jurisdiction in this case for the reconsideration of the final amounts of water appropriated by the proposed wells in accord with Paragraph 29 above. The Court's retained jurisdiction may be invoked only by the Applicants and JVRC, Inc. The Court's retained jurisdiction may be invoked by written notice to the Court requesting a hearing. Copies of that notice will be served on the parties herein at their latest address of record in this case.


Dated this 29 day of Oct., 1986.

BY THE COURT


Honorable John Tracey
Water Judge
Water Division No. 2
State of Colorado

APPROVED AS TO FORM AND SUBSTANCE:


SHERMAN & HOWARD

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Insurance Trust of Thomas M.
Dines.

c: Sherman and Howard (Salazar)
Vranesh & Raisch (Shimmin)
Division Engineer
State Engineer

VRANESH & RAISCH

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Attorneys for Objector
JVRC, Inc.

Filed in the office of the
Clerk, District Court Water
Division No. 2, State of
Colorado

OCT 29 1986

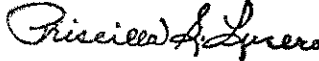

Clerk

EXHIBIT A

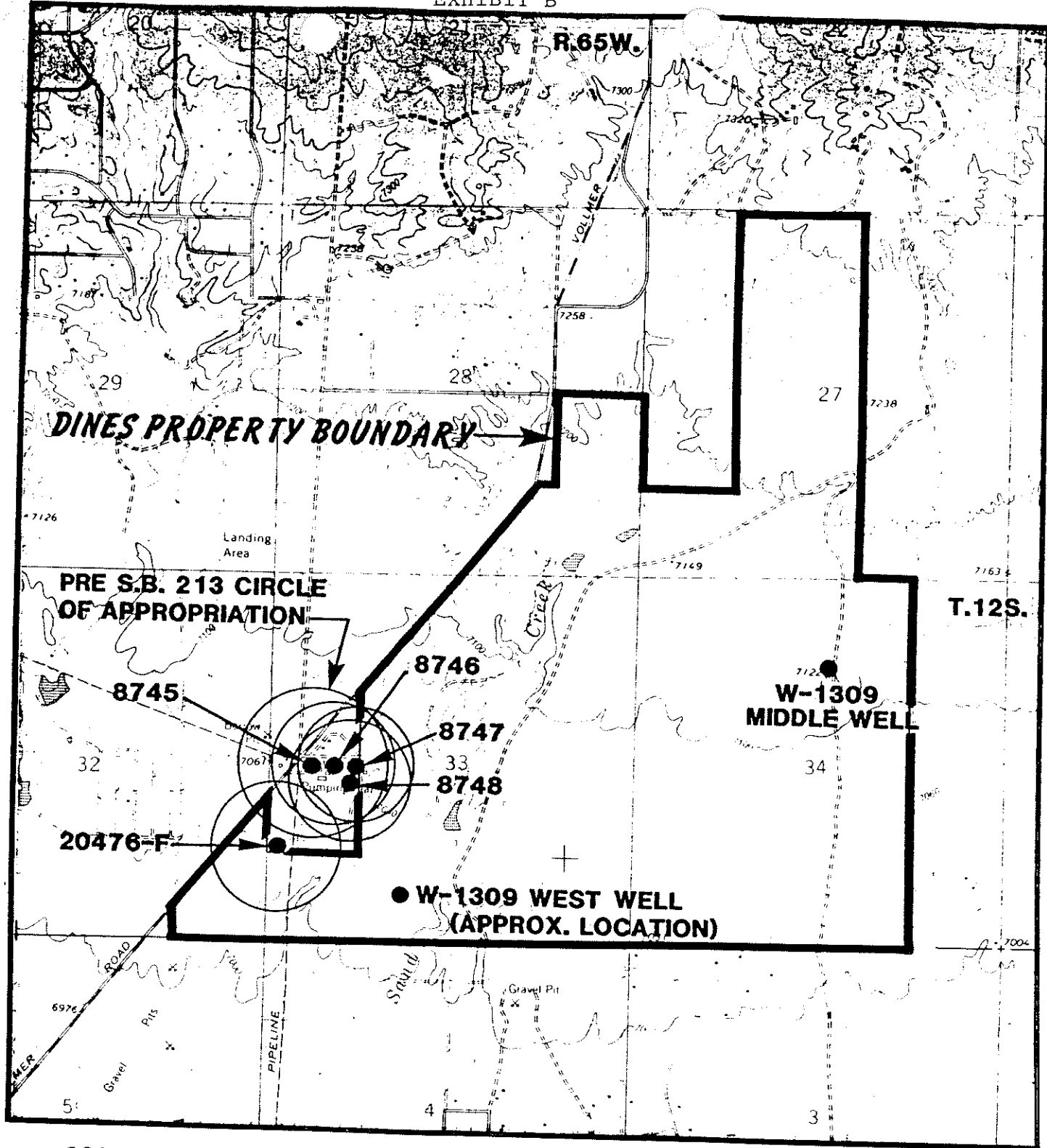
The Subject Lands consist of the following:

The W1/2 W1/2 E1/2 and the E1/2 W1/2 and the SW1/4 SW1/4 of Section 27; the E1/2 SE1/4 and that portion of the SW1/4 SE1/4 lying South and East of the County Road across said premises, both in Section 28; that portion of the SE1/4 SE1/4 of Section 32 lying South and East of said County Road, and that portion of the NE1/4 SE1/4 of said Section 32, lying South and East of said County Road; the E1/2 and the E1/2 SW1/4 and the SW1/4 SW1/4 of Section 33, and all that part of the NW1/4 of said Section 33 lying South and East of the said County Road across said premises, except that portion of the SW1/4 NW1/4 of said Section 33 lying South and East of said County Road containing approximately 10 acres deeded to Colorado Interstate Gas Company by Warranty Deed recorded in Book 1173 at Page 359 of the El Paso County Records; and the W1/2 E1/2 and the W1/2 of Section 34, all in Township 12 South, Range 65 West of the 6th P.M., located in El Paso County, Colorado.

Filed in the office of the
Clerk, District Court Water
Division No. 2, State of
Colorado

OCT 29 1986

Rosemary A. Lyons
Clerk



SCALE 1:24000

LOCATION MAP

FIGURE 1

Filed in the office of the
Clerk, District Court Water
Division No. 2, State of
Colorado

OCT 29 1986

Priscilla S. Lyners
Clerk

DISTRICT COURT, WATER DIVISION NO. 1, COLORADO

Case No. 85CW445

38 NOV 9 P 2: 08

RULING AND DECREE OF THE WATER COURT

DISTRICT COURT
WELD COUNTY COLO.

CONCERNING THE APPLICATION FOR WATER RIGHTS OF ED PENDLETON AND BEVERLY C. PENDLETON

IN THE NONTRIBUTARY DENVER, ARAPAHOE, AND LARAMIE-FOX HILLS AQUIFERS AND THE NOT NONTRIBUTARY UPPER DAWSON AQUIFER, in El Paso County.

THIS CLAIM, having been originally filed with the Water Division No. 1 Water Clerk on December 31, 1985, all matters contained in the application having been reviewed, and testimony having been taken where such testimony is necessary, and such corrections made as are indicated by the evidence presented herein, IT IS HEREBY THE RULING OF THE WATER REFEREE:

FINDINGS OF FACT

1. Name, Address, and Telephone Number of Applicants:

Ed Pendleton and Beverly C. Pendleton
c/o Mr. Merle McClung
8085 South Chester Street
Englewood, Colorado 80012
(303) 790-1776

Applicants shall be referred to hereafter singularly as the Applicant.

2. History of Case:

The Applicant is represented by Saunders, Snyder, Ross & Dickson, P.C. (William B. Tourtillott and Robert E. Schween). The original application for underground water rights from nontributary sources was filed with this Court on December 31, 1985. An amended application for underground water rights from nontributary and not nontributary sources was filed with this Court on March 31, 1987 and published in the March 1987 Water Resume for Water Division No. 1. A timely statement of opposition was filed to the amended application by the City of Colorado Springs (Gregory L. Johnson). No other statements of opposition or motions to intervene have been filed, and the period for filing of statements of opposition has expired.

3. Subject Matter Jurisdiction:

Timely and adequate notice of the pendency of these proceedings has been given in the manner required by law. The Water Court has jurisdiction over the subject matter of these proceedings and over all who have standing to appear as parties, whether they have appeared or not.

4. Aquifer and Location of Ground Water:

In this proceeding, Applicant seeks a ruling and decree for rights to all ground water recoverable from the nontributary Denver, Arapahoe, and Laramie-Fox Hills aquifers and the not nontributary Upper Dawson aquifer underlying Applicant's property in El Paso County, Colorado. The Applicant's property, which is subject to this case, is described as follows: all of Section 16; the E1/2 SW1/4 and the SE1/4 of Section 17; the E1/2 and the E1/2 W1/2 of Section 20; the NE 1/4 and the W1/2, except for the east 30 feet of the SW1/4, of Section 21, all in Township 11 South, Range 65 West of the 6th P.M., consisting of 1840 acres, more or less. Applicant is the owner of the ground water rights underlying the above-described land and no part of such land lies within a designated ground water basin. A general location map of the property is attached hereto as Exhibit "A."

5. Specific Wells Claimed:

The legal descriptions of the wells to be constructed under this decree are as follows:

A. Upper Dawson Aquifer

- (1) Bar X DA-1: SW1/4 NE1/4, Section 16, Township 11 South, Range 65 West of the 6th P.M., at a point which is 2,200 feet from the East Section line and 2,000 feet from the North section line of said Section 16.
- (2) Bar X DA-2: NE1/4 SE1/4, Section 17, Township 11 South, Range 65 West of the 6th P.M., at a point which is 500 feet from the East Section line and 1,500 feet from the South section line of said Section 17.
- (3) Bar X DA-3: NW1/4 NE1/4, Section 21, Township 11 South, Range 65 West of the 6th P.M., at a point which is 2,200 feet from the East Section line and 800 feet from the North section line of said Section 21.

- (4) Bar X DA-4: NW1/4 SW1/4, Section 21, Township 12 South, Range 65 West of the 6th P.M., at a point which is 400 feet from the West Section line and 1,500 feet from the South section line of said Section 21.

B. Denver Aquifer

- (1) Bar X D-1: SW1/4 NE1/4, Section 16, Township 11 South, Range 65 West of the 6th P.M., at a point which is 2,150 feet from the East Section line and 2,000 feet from the North section line of said Section 16.
- (2) Bar X D-2: NE1/4 SE1/4, Section 17, Township 11 South, Range 65 West of the 6th P.M., at a point which is 450 feet from the East Section line and 1,500 feet from the South section line of said Section 17.
- (3) Bar X D-3: NW1/4 NE1/4, Section 21, Township 11 South, Range 65 West of the 6th P.M., at a point which is 2,150 feet from the East Section line and 800 feet from the North section line of said Section 21.
- (4) Bar X D-4: NW1/4 SW1/4, Section 21, Township 11 South, Range 65 West of the 6th P.M., at a point which is 450 feet from the West Section line and 1,500 feet from the South section line of said Section 21.

C. Arapahoe Aquifer

- (1) Bar X A-1: SW1/4 NE1/4, Section 16, Township 11 South, Range 65 West of the 6th P.M., at a point which is 2,200 feet from the East Section line and 2,050 feet from the North section line of said Section 16.
- (2) Bar X A-2: NE1/4 SE1/4, Section 17, Township 11 South, Range 65 West of the 6th P.M., at a point which is 500 feet from the East Section line and 1,450 feet from the South section line of said Section 17.

- (3) Bar X A-3: NW1/4 NE1/4, Section 21, Township 11 South, Range 65 West of the 6th P.M., at a point which is 2,200 feet from the East Section line and 850 feet from the North section line of said Section 21.
- (4) Bar X A-4: NW1/4 SW1/4, Section 21, Township 11 South, Range 65 West of the 6th P.M., at a point which is 400 feet from the West Section line and 1,450 feet from the South section line of said Section 21.
- (5) Bar X A-5: SW1/4 NE1/4, Section 20, Township 11 South, Range 65 West of the 6th P.M., at a point which is 2,500 feet from the East Section line and 1,500 feet from the North section line of said Section 20.

D. Laramie-Fox Hills Aquifer

- (1) Bar X LFH-1: SW1/4 NE1/4, Section 16, Township 11 South, Range 65 West of the 6th P.M., at a point which is 2,150 feet from the East Section line and 2,050 feet from the North section line of said Section 16.
- (2) Bar X LFH-2: NE1/4 SE1/4, Section 17, Township 11 South, Range 65 West of the 6th P.M., at a point which is 450 feet from the East Section line and 1,450 feet from the South section line of said Section 17.
- (3) Bar X LFH-3: NW1/4 NE1/4, Section 21, Township 11 South, Range 65 West of the 6th P.M., at a point which is 2,150 feet from the East Section line and 850 feet from the North section line of said Section 21.
- (4) Bar X LFH-4: NW1/4 SW1/4, Section 21, Township 11 South, Range 65 West of the 6th P.M., at a point which is 450 feet from the West Section line and 1,450 feet from the South section line of said Section 21.

6. Well Permits:

A. Applicant will make application for permits for each well described herein at such time as Applicant is ready to construct each well or series of wells.

B. The State Engineer shall consider the rights granted herein as valid. Because a unified municipal water supply system is planned to serve this property, the system will be constructed pursuant to a phased development program over a considerable period of time. Each well will be drilled and completed as it is needed pursuant to such phased development program. Accordingly, the Court determines that if Applicant fails to construct any of said wells within the period of time specified in the corresponding well permits, it may reapply and the State Engineer shall promptly reissue that well permit for the amount of water determined herein with burdens no more restrictive than found herein.

7. Average Annual Amounts of Withdrawal Available:

A. Not Nontributary Upper Dawson Aquifer:

Pursuant to the Denver Basin Rules, the ground water in the Upper Dawson aquifer underlying Applicant's property is classified as not nontributary ground water. The hydrologic values and the average annual amount available for withdrawal from the Upper Dawson aquifer are as follows:

	<u>Upper Dawson Aquifer</u>		
<u>Acreage</u>	<u>Sand Thickness</u>	<u>Specific Yield</u>	<u>Average Annual Amt. in Acre-Foot</u>
1840	490 feet	.20%	1803

B. Nontributary Denver, Arapahoe, and Laramie-Fox Hills Aquifers:

Pursuant to the Denver Basin Rules, the ground water in the Denver, Arapahoe, and Laramie-Fox Hills aquifers underlying Applicant's property is classified as nontributary ground water, as defined in § 37-90-103(10.5), C.R.S. The hydrologic values and the average annual amounts available for withdrawal from the Denver, Arapahoe, and Laramie-Fox Hills aquifers are as follows:

THE WATER RIGHT #18
Dawson Aquifer
HAS BEEN MODIFIED SEE
CASE NO. 93CW018

<u>Aquifer</u>	<u>Acreage</u>	<u>Sand Thickness</u>	<u>Specific Yield</u>	<u>Average Annual Amt. in Acre-Feet</u>
Denver	1840	435 feet	.17%	1360
Arapahoe	1840	260 feet	.17%	813
Laramie-Fox Hills	1840	200 feet	.15%	552

C. The above values and amounts are consistent with the Determinations of Facts issued by the Office of the State Engineer (April 29, 1986).

8. Nominal Pumping Rates and Estimated Average Well Depths:

<u>Aquifer</u>	<u>Combined Rate</u>	<u>Individual Well Rate</u>	<u>Well Depth (Average)</u>
Upper Dawson	1500 gpm (3.3cfs)	375 gpm (.84cfs)	1,040 feet
Denver	1200 gpm (2.6cfs)	300 gpm (.66cfs)	1,930 feet
Arapahoe	750 gpm (1.6cfs)	150 gpm (.33cfs)	2,450 feet
Laramie-Fox Hills	480 gpm (1.0cfs)	120 gpm (.26cfs)	2,950 feet

9. Final Average Annual Amounts of Withdrawal:

A. Final determinations of the applicable average specific yields, saturated sand thicknesses, and resulting average annual amounts available to Applicant from each aquifer will be made pursuant to the retained jurisdiction of this Court, as described in paragraph 21 hereinbelow. In the event this decree is not reopened for a further quantitative determination, the findings herein are final and controlling.

B. The allowed annual amount of ground water which may be withdrawn from such aquifers through the wells specified above and any additional wells, pursuant to § 37-90-137(10), C.R.S. (1985 Supp.), may exceed the average annual amount of withdrawal, as long as the total volume of water withdrawn through such wells and any additional wells therefor subsequent to the date of this decree does not exceed the product of the number of years since the date of the issuance of the well permits or the date of this decree, whichever is earliest in time, multiplied by the average annual amount of withdrawal, as specified above or as determined pursuant to the retained jurisdiction of the Court.

10. Source of Ground Water; Limitations on Consumption;
Replacement Obligations and Requirements:

A. The ground water to be withdrawn from the Denver, Arapahoe, and Laramie-Fox Hills aquifers is "nontributary ground water" as defined in § 37-90-103(10.5), C.R.S. (1985 Supp.), and in the Denver Basin Rules, the withdrawal of which will not, within 100 years, deplete the flow of a natural stream, including a natural stream as defined in §§ 37-82-101(2) and 37-92-102(1)(b), C.R.S., at an annual rate greater than 1/10 of 1% of the annual rate of withdrawal. The ground water to be withdrawn from the Upper Dawson aquifer is "not nontributary ground water" as described in the Denver Basin Rules, 2 C.C.R. 402-6, Rule 5A.

B. Applicant may not consume more than 98% of the annual quantity of water withdrawn from the nontributary Denver, Arapahoe, and Laramie-Fox Hills aquifers. The relinquishment of 2% of the annual amount of water withdrawn to the stream system, as required by the Denver Basin Rules effective January 1, 1986, may be satisfied by any method selected by the Applicant and satisfactory to the State Engineer, so long as Applicant can demonstrate that an amount equal to 2% of such withdrawals (by volume) has been relinquished to the stream system.

C. The ground water to be withdrawn from the Upper Dawson aquifer is classified as not nontributary, requiring as a condition precedent to use that Applicant obtain a judicially approved augmentation plan for the replacement of depletions to the affected stream system. Pursuant to the statutory requirement at § 37-90-137(9)(c), C.R.S. (1985 Supp.), the amount of the replacement must be the actual depletive effect caused by withdrawal of the resource to the extent necessary to prevent injury.

11. No Material Injury:

There is unappropriated ground water available for withdrawal from each aquifer beneath the land described herein, and the vested water rights of others will not be materially injured by such withdrawals as described hereby. The minimum useful life of each of the subject aquifers is at least 100 years, assuming no substantial artificial recharge within 100 years. No material injury to vested water rights of others will result from the issuance of permits for the subject wells or the exercise of the rights and limitations specified in this decree therefor.

12. Additional Wells and Well Fields:

A. The Applicant proposes to build a unified municipal water system over the period of many years and will construct its wells as required by development. Any well drilled within 200 feet of a decreed location will be deemed to be constructed at the decreed well location pursuant to the permit and this decree.

B. In addition to the wells described in paragraph 5 above, Applicant may construct additional and replacement wells in order to maintain levels of production, to meet municipal water supply systems demands, or to recover the entire amount of ground water in the subject aquifers underlying the subject property, as described herein. As additional wells are planned, applications shall be filed in accordance with § 37-90-137(10), C.R.S. (1985 Supp.).

C. So long as allowed annual amounts are not exceeded, the pumping rates for the wells may exceed the pumping rates specified herein in order to meet municipal water system supply requirements or to produce the full acre foot allocation of water from each aquifer. Two or more wells constructed into the same aquifer shall be considered a well field. In effecting production of water from such well field, Applicant may produce the entire amount which may be produced hereunder from the particular aquifer through any combination of wells within the well field for that particular aquifer.

D. In considering applications for permits for additional wells to withdraw the ground water which is the subject of this decree, the State Engineer shall be bound by this decree and shall issue said permits in accordance with provisions of § 37-90-137(4), C.R.S. (1985 Supp.). Applicant shall not be required to submit any additional proof or evidence of matters finally determined herein when making application for permits for wells to withdraw the water which is the subject of this decree, except that the State Engineer may require revised land ownership or consent to use affidavits.

E. In the event that the allowed average annual amounts decreed herein are adjusted pursuant to the retained jurisdiction of the Court, any existing permit(s) for any well(s) decreed herein shall be amended to reflect such adjusted average annual amounts. New permits for any wells herein shall likewise reflect any such adjustment of the average annual amounts decreed herein.

13. Proposed Uses of Water:

The water withdrawn from any well may be used, reused, and successively used and otherwise disposed of for all municipal purposes including domestic, industrial, commercial, irrigation, stock watering, recreational, fish and wildlife, fire protection and sanitary purposes subject to the provisions of paragraph 20 herein. This water will be produced for immediate application to said uses, for storage and subsequent application to said uses, for exchange purposes, for replacement of depletions resulting from the use of this ground water or of water from other sources, and for augmentation purposes. Moreover, Applicant may use return flows of this ground water to replace stream depletions under a plan for augmentation approved in compliance with applicable law.

14. Conditions:

For each well constructed pursuant to this decree, Applicant shall comply with the following conditions:

A. A totalizing flow meter shall be installed on the well discharge prior to diverting any water therefrom. Applicant shall keep accurate records of all diversions by the well, make any calculations necessary, and submit such records to the Water Division No. 1 Engineer annually.

B. The entire length of the open bore hole shall be geophysically surveyed prior to casing and copies of the geophysical log submitted to the Division of Water Resources. Applicant may provide a geophysical log from an adjacent well or test hole, pursuant to Rule 8F of the Statewide Rules and acceptable to the State Engineer, which fully penetrates the aquifer, in satisfaction of the above requirement.

C. The ground water production shall be limited to the specific aquifer for which the well was designed. Plain, unperforated casing must be installed and properly grouted to prevent withdrawal from or intermingling of water from zones other than those for which the well was designed.

D. Each well shall be permanently identified by its permit number, this Water Court Case Number, and the name of the producing aquifer on the above-ground portion of the well casing or on the pumphouse.

CONCLUSIONS OF LAW

15. The Water Court has jurisdiction over this proceeding pursuant to § 37-90-137(6), C.R.S. This Court concludes as a matter of law that the application herein is one contemplated by law. Section 37-90-137(4), C.R.S. The application for a decree confirming Applicant's right to withdraw and use all ground water from the named nontributary and not nontributary aquifers beneath its property as described herein pursuant to § 37-90-137(4), C.R.S. (1985 Supp.), should be granted, subject to the provisions of this decree. The nature and extent of the rights to nontributary and not nontributary ground water determined herein are defined by §§ 37-90-137(4) and 37-90-137(9), C.R.S. (1985 Supp.). The withdrawal of the ground water decreed herein in accordance with the terms of this decree will not result in material injury to vested water rights of others as a matter of law.

16. The rights to nontributary and not nontributary ground water determined herein shall not be administered in accordance with priority of appropriation. Such rights are not "conditional water rights" as defined by § 37-92-103(6), C.R.S. The provisions of § 37-92-301(4), C.R.S., requiring quadrennial findings of reasonable diligence are not applicable to the ground water rights determined herein. The determination of ground water rights herein need not include a date of initiation of the withdrawal project. See § 37-92-305(11), C.R.S. (1985 Supp.). Ground water herein which is not nontributary shall be administered only pursuant to §§ 37-90-137(4) and 37-90-137(9), C.R.S. (1985 Supp.).

17. Subject to paragraph 20, below, Applicant is entitled to permits to construct the wells described in paragraph 5 hereof which will withdraw nontributary and not nontributary ground water pursuant to § 37-90-137(4), C.R.S., and such additional wells as may be required in the future to withdraw such ground water pursuant to § 37-90-137(10), C.R.S. (1985 Supp.).

IT IS THEREFORE, ORDERED, ADJUDGED, AND DECREED THAT:

18. The Findings of Fact and Conclusions of Law are incorporated into this decree of the Water Court.

19. Right to Withdraw Nontributary Ground Water:

The Applicant may withdraw the nontributary ground water herein through the wells listed above at the locations listed above and in the average annual amounts and at the rates of flow specified therefor, subject to the limitations herein and the retained jurisdiction by this Court.

20. Replacement Obligation for Use of Not Nontributary Ground Water Rights:

By separate application, Applicant will seek a plan for augmentation of depletions associated with the withdrawal of Upper Dawson ground water decreed hereby. No such augmentation plan is sought in this case. Judicial approval of such a plan for augmentation is a condition precedent to withdrawal and use of this resource.

21. Retained Jurisdiction:


A. The Court retains jurisdiction as necessary to adjust the average annual amounts of nontributary and not nontributary ground water available under the property to conform to actual local aquifer characteristics as determined from adequate information obtained from wells, pursuant to § 37-92-305(11), C.R.S. (1985 Supp.). Within 60 days after completion of any well decreed herein, or any test hole(s), Applicant or any successor in interest to these water rights shall obtain a geophysical log of said well(s) or test hole(s) and shall serve such log(s) upon the State Engineer and notify each of the parties who have appeared herein that copies of the log and well completion report, if the well is completed, are available for review.

B. At such time as adequate data are available and within four months of notice that the retained jurisdiction for such purpose has been invoked, the State Engineer shall use the information available to him to make a final determination of water rights finding. The State Engineer shall submit such finding to the Water Court and to the Applicant, and the Applicant shall serve a copy upon the other parties.

C. If no protest to such finding is made within 60 days, the Final Determination of Water Rights shall be incorporated into the decree by the Water Court. In the event of a protest, or in the event the State Engineer makes no determination within four months, such final determination shall be made by the Water Court after notice and hearing.


D. In the event Applicant fails to invoke retained jurisdiction, the State Engineer or any party hereto may do so. In the interim, the Court retains jurisdiction in this matter pursuant to § 37-92-305(11), C.R.S. (1985 Supp.).

RULING ENTERED this 9th day of November 1988.


Raymond S. Liesman
Water Referee
Water Division No. 1
State of Colorado

THE COURT DOTH FIND THAT NO PROTEST TO THE RULING OF THE REFEREE HAS BEEN FILED. THE FOREGOING RULING IS CONFIRMED AND APPROVED, AND IS HEREBY MADE THE JUDGMENT AND DECREE OF THIS COURT.

DATED: December 12, 1988


Robert A. Behrman
Water Judge
Water Division No. 1
State of Colorado

**THE WATER RIGHT FOR
Dowson Aquifer
HAS BEEN MODIFIED SEE
CASE NO. 93-CW-918**

APPROVED AS TO FORM AND CONTENT:

SAUNDERS, SNYDER, ROSS
& DICKSON, P.C.

Date: 15 Oct. 1987

By Robert E. Schween
William B. Tourtillott, Jr., #184
Robert E. Schween, #12923
707 17th Street
Suite 3500
Denver, Colorado 80202
(303) 292-6600

ATTORNEYS FOR APPLICANT
ED PENDLETON AND BEVERLY C. PENDLETON

ANDERSON, JOHNSON, & GIANUNZIO

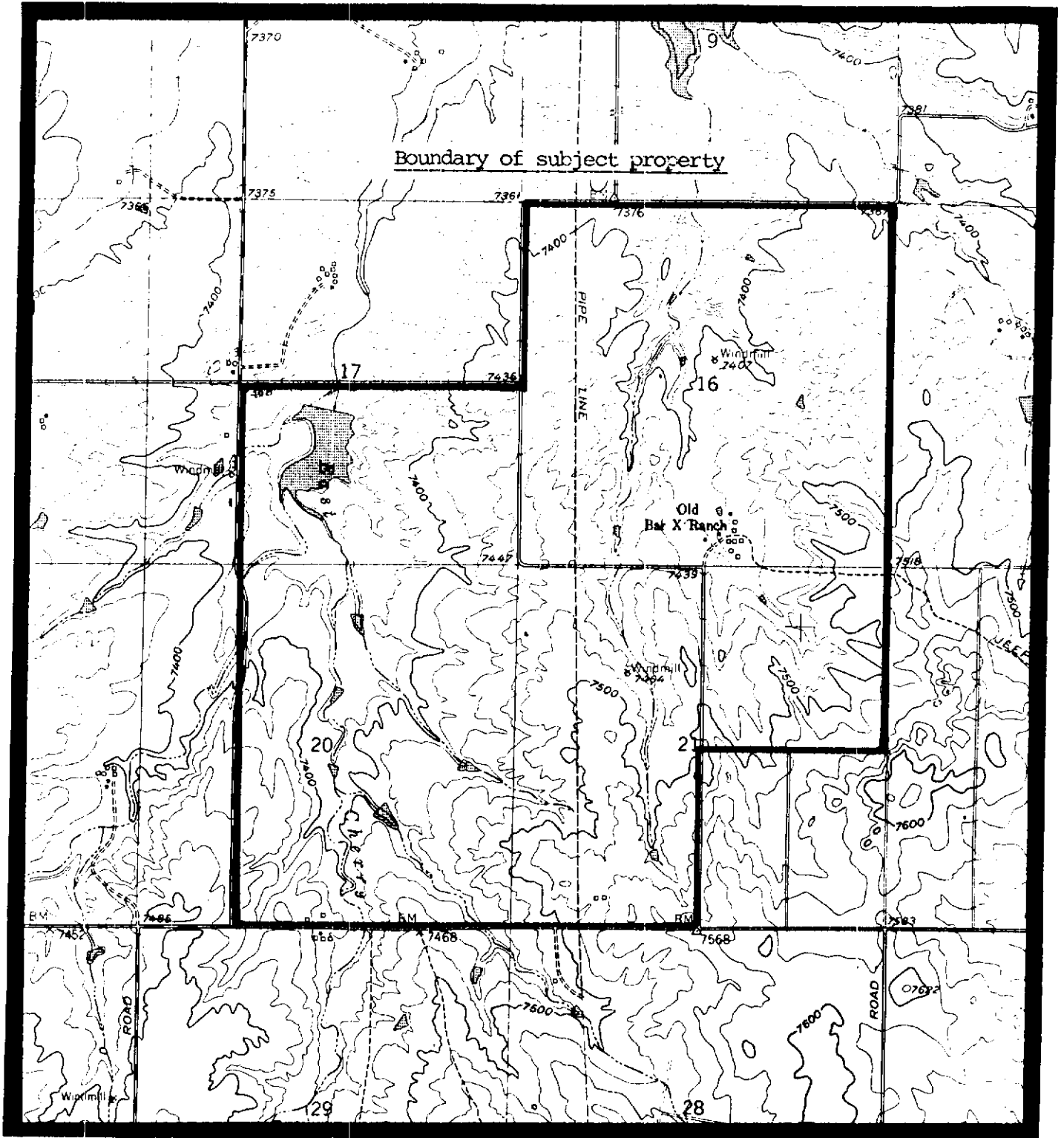
Date: 10-15-87

By Mark T. Pifer
Gregory L. Johnson, #448
Mark T. Pifer, #12629
104 S. Cascade Ave., Suite 204
P.O. Box 240
Colorado Springs, Colorado 80901-0240
(303) 632-3545

ATTORNEYS FOR OBJECTOR
CITY OF COLORADO SPRINGS

EXHIBIT A
TO
RULING AND DECREE
CASE NO. 85CW445

R65W



T11S

RES

200
MAY 18 1988

DISTRICT COURT, WATER DIVISION No. 2, COLORADO

Case No. 85CW131

DECEMBER 31 1985
MAY 18 1988

MAY 18 1988

DECREE OF THE WATER COURT

Russell J. Snyder
Clerk

SAUNDERS, SNYDER, ROSS & DICKSON

CONCERNING THE APPLICATION FOR WATER RIGHTS OF PENDLETON LAND AND EXPLORATION, INC.

IN THE NONTRIBUTARY DENVER, ARAPAHOE, AND LARAMIE-FOX HILLS AQUIFERS AND THE NOT NONTRIBUTARY DAWSON, DENVER, AND ARAPAHOE AQUIFERS, in El Paso County.

THIS CLAIM, having been originally filed with the Water Division No. 2 Water Clerk on December 31, 1985, all matters contained in the application having been reviewed, and testimony having been taken where such testimony is necessary, and such corrections made as are indicated by the evidence presented herein, the Court makes the following:

FINDINGS OF FACT

1. Name, Address, and Telephone Number of Applicant:

Pendleton Land and Exploration, Inc.
c/o Mr. Merle McClung
8085 S. Chester St.
Englewood, Colorado 80012
(303) 790-1776

2. History of Case:

The Applicant is represented by Saunders, Snyder, Ross & Dickson, P.C. (William B. Tourtillott and Robert E. Schween). The original application for underground water rights from nontributary sources was filed with this Court on December 31, 1985. An amended application for underground water rights from nontributary and not nontributary sources was filed with this Court on April 24, 1987 and published in the May 1987 Water Resume for Water Division No. 2. Timely statements of opposition were filed to the original and amended application by the City of Colorado Springs (Gregory L. Johnson), JVRC, Inc. (Michael D. Shimmin), Upper District 10 Water Users Association (Gregory L. Johnson), and Black Forest Land Use Committee (Barbara Hosmer). No other statements of opposition or motions to intervene have been filed, and the period for filing of statements of opposition has expired

3. Subject Matter Jurisdiction:

Timely and adequate notice of the pendency of these proceedings has been given in the manner required by law. The Water Court has jurisdiction over the subject matter of these proceedings and over all who have standing to appear as parties, whether they have appeared or not.

4. Aquifers and Location of Ground Water:

A. In this proceeding, Applicant seeks a decree for rights to all ground water recoverable from the nontributary Denver, Arapahoe, and Laramie-Fox Hills aquifers and the not nontributary Dawson, Denver, and Arapahoe aquifers underlying Applicant's property in El Paso County, Colorado.

B. The ground water rights are linked to different portions of Applicant's property as generally described below:

1. Dawson Aquifer

Applicant will withdraw not nontributary ground water from the Dawson aquifer underlying approximately 2280 acres of property as more particularly described on Exhibit "A" attached hereto and made a part hereof. A general location map of the property is attached as Exhibit "B."

2. Denver Aquifer

Applicant will withdraw not nontributary ground water from the Denver aquifer underlying approximately 2080 acres of property and nontributary ground water from the Denver aquifer underlying approximately 200 acres of property as more particularly described on Exhibit "C" attached hereto and made a part hereof. A general location map of the property designated as not nontributary and nontributary in the Denver aquifer is attached as Exhibit "D."

3. Arapahoe Aquifer

Applicant will withdraw not nontributary ground water from the Arapahoe aquifer underlying approximately 634 acres of property and nontributary ground water from the Arapahoe aquifer underlying approximately 1646 acres of property as more particularly described on Exhibit "E" attached hereto and made a part hereof. A general location map of the property designated as not nontributary and nontributary in the Arapahoe aquifer is attached as Exhibit "F "

4. Laramie-Fox Hills Aquifer

Applicant will withdraw nontributary ground water from the Laramie-Fox Hills aquifer underlying approximately 2280 acres of property as more particularly described on Exhibit "A." A general location map of the property is attached as Exhibit "B."

C. Applicant is the owner of the ground water rights underlying the above-described lands and no part of such lands lies within a designated ground water basin.

5. Specific Wells Claimed:

The legal descriptions of the wells to be constructed under this decree are as follows:

A. Dawson Aquifer

- (1) West DA-1: SW1/4 NW1/4, Section 26, Township 11 South, Range 66 West of the 6th P.M., at a point which is 1,000 feet from the West Section line and 2,000 feet from the North section line of said Section 26.
- (2) West DA-2: SW1/4 NW1/4, Section 25, Township 11 South, Range 66 West of the 6th P.M., at a point which is 300 feet from the West Section line and 1,500 feet from the North section line of said Section 25.
- (3) West DA-3: NW1/4 NW1/4, Section 35, Township 11 South, Range 66 West of the 6th P.M., at a point which is 200 feet from the West Section line and 1,000 feet from the North section line of said Section 35.
- (4) West DA-4: SE1/4 SE1/4, Section 26, Township 11 South, Range 66 West of the 6th P.M., at a point which is 1,000 feet from the East Section line and 500 feet from the South section line of said Section 26.
- (5) West DA-5: NW1/4 SE1/4, Section 35, Township 11 South, Range 66 West of the 6th P.M., at a point which is 2,000 feet from the East Section line and 1,500 feet from the South section line of said Section 35.

- (6) West DA-6: NE1/4 NE1/4, Section 3, Township 12 South, Range 66 West of the 6th P.M., at a point which is 1,200 feet from the East Section line and 300 feet from the North section line of said Section 3.

B. Denver Aquifer

- (1) West D-1: SW1/4 NW1/4, Section 26, Township 11 South, Range 66 West of the 6th P.M., at a point which is 1,050 feet from the West Section line and 2,000 feet from the North section line of said Section 26.
- (2) West D-2: SW1/4 NW1/4, section 25, Township 11 South, Range 66 West of the 6th P M., at a point which is 350 feet from the West line and 1500 feet from the North line of said Section 25.
- (3) West D-3: NW1/4 NW1/4, Section 35, Township 11 South, Range 66 West of the 6th P.M., at a point which is 250 feet from the West Section line and 1,000 feet from the North section line of said Section 35.
- (4) West D-4: SE1/4 SE1/4, Section 26, Township 11 South, Range 66 West of the 6th P.M., at a point which is 950 feet from the East Section line and 500 feet from the South section line of said Section 26.
- (5) West D-5: NW1/4 SE1/4, Section 35, Township 11 South, Range 66 West of the 6th P.M., at a point which is 1,950 feet from the East Section line and 1,500 feet from the South section line of said Section 35.
- (6) West D-6: NE1/4 NE1/4, Section 3, Township 12 South, Range 66 West of the 6th P.M., at a point which is 1,150 feet from the East Section line and 300 feet from the North section line of said Section 3.

C. Arapahoe Aquifer

- (1) West A-1: SW1/4 NW1/4, Section 26, Township 11 South, Range 66 West of the 6th P M , at a point which is 1,000 feet from the West Section line and 2,050 feet from the North section line of said Section 26.

- (2) West A-2: SW1/4 NW1/4, Section 25, Township 11 South, Range 66 West of the 6th P.M., at a point which is 300 feet from the West Section line and 1,550 feet from the North section line of said Section 25.
- (3) West A-3: NW1/4 NW1/4, Section 35, Township 11 South, Range 66 West of the 6th P.M., at a point which is 200 feet from the West Section line and 1,050 feet from the North section line of said Section 35.
- (4) West A-4: SE1/4 SE1/4, Section 26, Township 11 South, Range 66 West of the 6th P.M., at a point which is 1,000 feet from the East Section line and 450 feet from the South section line of said Section 26.
- (5) West A-5: NW1/4 SE1/4, Section 35, Township 11 South, Range 66 West of the 6th P.M., at a point which is 2,000 feet from the East Section line and 1,450 feet from the South section line of said Section 35.
- (6) West A-6: NE1/4 NE1/4, Section 3, Township 12 South, Range 66 West of the 6th P.M., at a point which is 1,200 feet from the East Section line and 350 feet from the North section line of said Section 3.

D. Laramie-Fox Hills Aquifer

- (1) West LFH-1: SW1/4 NW1/4, Section 26, Township 11 South, Range 66 West of the 6th P.M., at a point which is 1,050 feet from the West Section line and 2,050 feet from the North section line of said Section 26.
- (2) West LFH-3: NW1/4 NW1/4, Section 35, Township 11 South, Range 66 West of the 6th P.M., at a point which is 250 feet from the West Section line and 1,050 feet from the North section line of said Section 35.
- (3) West LFH 4: SE1/4 SE1/4, Section 26, Township 11 South, Range 66 West of the 6th P.M., at a point which is 950 feet from the East Section line and 450 feet from the South section line of said Section 26

- (4) West LFH-6: NE1/4 NE1/4, Section 3, Township 12 South, Range 66 West of the 6th P M., at a point which is 1,150 feet from the East Section line and 350 feet from the North section line of said Section 3

6. Well Permits:

A. Applicant will make application for permits for each well described herein at such time as Applicant is ready to construct each well or series of wells.

B. The State Engineer shall consider the rights granted herein as valid. Because a unified municipal water supply system is planned to serve this property, the system will be constructed pursuant to a phased development program over a considerable period of time. Each well will be drilled and completed as it is needed pursuant to such phased development program. Accordingly, the Court determines that if Applicant fails to construct any of said wells within the period of time specified in the corresponding well permits, it may reapply and the State Engineer shall promptly reissue that well permit for the amount of water determined herein with burdens no more restrictive than found herein.

7. Average Annual Amounts of Withdrawal Available:

A. Not Nontributary Dawson, Denver, and Arapahoe Aquifers:

Pursuant to the Denver Basin Rules, the ground water in the Dawson, Denver, and Arapahoe aquifers underlying all or part of Applicant's property, as described in Paragraph 4 herein, is classified as not nontributary ground water. The hydrologic values and the average annual amounts available for withdrawal from the not nontributary Dawson, Denver, and Arapahoe aquifers are as follows:

<u>Aquifer</u>	<u>Acreage</u>	<u>Sand Thickness</u>	<u>Specific Yield</u>	<u>Ave. Ann. Amt. in Acre-Feet</u>
Dawson	2280	375 feet	20%	1710
Denver	2080	550 feet	17%	1945
Arapahoe	634	220 feet	17%	237

B. Nontributary Denver, Arapahoe, and Laramie-Fox Hills Aquifers:

Pursuant to the Denver Basin Rules, the ground water in the Denver, Arapahoe, and Laramie-Fox Hills aquifers underlying all or part of Applicant's property, as described in Paragraph 4 herein, is classified as nontributary ground water, pursuant to § 37-90-137(9)(c), C.R.S. The hydrologic values and the average annual amounts available for withdrawal from the nontributary Denver, Arapahoe, and Laramie-Fox Hills aquifers are as follows:

<u>Aquifer</u>	<u>Acreage</u>	<u>Sand Thickness</u>	<u>Specific Yield</u>	<u>Ave. Ann. Amt. in Acre-Feet</u>
Denver	200	550 feet	17%	187
Arapahoe	1646	220 feet	17%	616
Laramie-Fox Hills	2280	200 feet	15%	684

C. The above values and amounts are consistent with the Findings of the State Engineer issued on March 25, 1986, and supplemented on November 5, 1987.

8. Final and Interim Average Annual Amounts of Withdrawal; and Allowed Amounts of Withdrawal Exceeding Average Annual Amounts:

A. Final determinations of the applicable average saturated sand thicknesses and resulting average annual amounts available to Applicant from each aquifer will be made pursuant to the retained jurisdiction of this Court, as described in paragraph 18 hereinbelow. In the event this decree is not reopened for a further quantitative determination, the findings herein are final and controlling.

B. The allowed annual amount of ground water which may be withdrawn from such aquifers through the wells specified above and any additional wells, pursuant to § 37-90-137(10), C.R.S. (1987 Supp.), may exceed the average annual amount of withdrawal, as long as the total volume of water withdrawn through such wells and any additional wells therefor subsequent to the date of this decree does not exceed the product of the number of years since

the date of the issuance of the well permits or the date of this decree, whichever is earliest in time, multiplied by the average annual amount of withdrawal, as specified above or as determined pursuant to the retained jurisdiction of the Court.

9. Source of Ground Water; Limitations on Consumption; Replacement Obligations and Requirements:

A. The ground water to be withdrawn from the Laramie-Fox Hills aquifer and the described portions of the Denver and Arapahoe aquifers is "nontributary ground water" as defined in § 37-90-103(10.5), C.R.S. (1987 Supp.), and in the Denver Basin Rules, the withdrawal of which will not, within 100 years, deplete the flow of a natural stream, including a natural stream as defined in §§ 37-82-101(2) and 37-92-102(1)(b), C.R.S., at an annual rate greater than 1/10 of 1% of the annual rate of withdrawal.

B. Applicant may not consume more than 98% of the annual quantity of water withdrawn from the nontributary Denver, Arapahoe, and Laramie-Fox Hills aquifers. The relinquishment of 2% of the annual amount of water withdrawn to the stream system, as required by the Denver Basin Rules effective January 1, 1986, may be satisfied by any method selected by the Applicant and satisfactory to the State Engineer, so long as Applicant can demonstrate that an amount equal to 2% of such withdrawals (by volume) has been relinquished to the stream system.

C. Withdrawal of ground water from the Dawson aquifer and the described portions of the Denver and Arapahoe aquifers will, within 100 years, deplete the flow of a natural stream at an annual rate greater than one-tenth of one percent of the annual rate of withdrawal therefrom. Such ground water is not nontributary and requires, as a condition precedent to use, that Applicant obtain a judicially approved augmentation plan for the replacement of depletions to the affected stream system, pursuant to the statutory requirements in effect at such time that the augmentation plan is prosecuted.

D. There is unappropriated ground water available for withdrawal from each aquifer beneath the land described herein, and the vested water rights of others will not be materially injured by such withdrawals as described hereby. The minimum useful life of each of the subject aquifers is at least 100 years, assuming no substantial artificial recharge within 100 years. No

material injury to vested water rights of others will result from the issuance of permits for the subject wells or the exercise of the rights and limitations specified in this decree therefor.

10. Additional Wells and Well Fields:

A. The Applicant proposes to build a unified municipal water system over the period of many years and will construct its wells as required by development. Any well drilled within 200 feet of a decreed location will be deemed to be constructed at the decreed well location pursuant to the permit and this decree.

B. In addition to the wells described in paragraph 5 above, Applicant may construct additional and replacement wells in order to maintain levels of production, to meet municipal water supply systems demands or to recover the entire amount of ground water in the subject aquifers underlying the subject property, as described herein. As additional wells are planned, applications shall be filed in accordance with § 37-90-137(10), C.R.S. (1987 Supp.).

C. The pumping rates for the wells may exceed the pumping rates specified in the State Engineer's Findings in order to meet municipal water supply requirements or to produce the full acre foot allocation of water from each aquifer. Two or more wells constructed into the same aquifer shall be considered a well field. Applicant may produce the entire amount which may be produced hereunder from the particular aquifer through any combination of wells within the well field for that particular aquifer; except that wells constructed in the land area overlying not nontributary ground water may produce only such not nontributary ground water. Moreover, Applicant's augmentation plan will have to separately account for nontributary and not nontributary ground water withdrawals from each aquifer.

D. In considering applications for permits for additional wells to withdraw the ground water which is the subject of this decree, the State Engineer shall be bound by this decree and shall issue said permits in accordance with provisions of § 37-90-137(10), C.R.S. (1987 Supp.). Applicant shall not be required to submit any additional proof or evidence of matters finally determined herein when making application for permits for wells to withdraw the water which is the subject of this decree, except that the State Engineer may require revised land ownership or consent to use affidavits and may require such additional information as specified in the Statewide Nontributary Ground Water Rules, 2 CCR 402-7.

E. In the event that the allowed average annual amounts decreed herein are adjusted pursuant to the retained jurisdiction of the Court, any existing permit(s) for any well(s) decreed herein shall be amended to reflect such adjusted average annual amounts. New permits for any wells herein shall likewise reflect any such adjustment of the average annual amounts decreed herein.

11. Proposed Uses of Water:

The water withdrawn from any well may be used, reused, and successively used and otherwise disposed of for all municipal purposes including domestic, industrial, commercial, irrigation, stock watering, recreational, fish and wildlife, fire protection and sanitary purposes subject to the provisions of paragraph 20 herein. This water will be produced for immediate application to said uses, for storage and subsequent application to said uses, for exchange purposes, for replacement of depletions resulting from the use of this ground water or of water from other sources, and for augmentation purposes. Moreover, Applicant may use return flows of this ground water to replace stream depletions under a plan for augmentation approved in compliance with applicable law.

12. Conditions:

For each well constructed pursuant to this decree, Applicant shall comply with the following conditions:

A. A totalizing flow meter shall be installed on the well discharge prior to diverting any water therefrom. Applicant shall keep accurate records of all diversions by the well, make any calculations necessary, and submit such records to the Water Division No. 2 Engineer annually.

B. The entire length of the open bore hole shall be geophysically surveyed prior to casing and copies of the geophysical log submitted to the Division of Water Resources. Applicant may provide a geophysical log from an adjacent well or test hole, pursuant to Rule 9A of the Statewide Rules and acceptable to the State Engineer, which fully penetrates the aquifer, in satisfaction of the above requirement.

C. The ground water production shall be limited to the specific aquifer for which the well was designed. Plain, unperforated casing must be installed and properly grouted to prevent withdrawal from or intermingling of water from zones other than those for which the well was designed.

D. Each well shall be permanently identified by its permit number, this Water Court Case Number, and the name of the producing aquifer on the above-ground portion of the well casing or on the pumphouse.

CONCLUSIONS OF LAW

13. The Water Court has jurisdiction over this proceeding pursuant to § 37-90-137(6), C.R.S. This Court concludes as a matter of law that the application herein is one contemplated by law. Section 37-90-137(4), C.R.S. The application for a decree confirming Applicant's right to withdraw and use all ground water from the named nontributary and not nontributary aquifers beneath its property as described herein pursuant to § 37-90-137(4), C.R.S. (1987 Supp.), should be granted, subject to the provisions of this decree. The nature and extent of the rights to nontributary and not nontributary ground water determined herein are defined by §§ 37-90-137(4) and 37-90-137(9), C.R.S. (1987 Supp.). The withdrawal of the ground water decreed herein in accordance with the terms of this decree will not result in material injury to vested water rights of others.

14. The rights to nontributary and not nontributary ground water determined herein shall not be administered in accordance with priority of appropriation. Such rights are not "conditional water rights" as defined by § 37-92-103(6), C.R.S. The provisions of § 37-92-301(4), C.R.S., requiring quadrennial findings of reasonable diligence are not applicable to the ground water rights determined herein. The determination of ground water rights herein need not include a date of initiation of the withdrawal project. See § 37-92-305(11), C.R.S. (1987 Supp.). Ground water herein which is not nontributary shall be administered only pursuant to §§ 37-90-137(4) and 37-90-137(9), C.R.S. (1987 Supp.).

IT IS THEREFORE, ORDERED, ADJUDGED, AND DECREED THAT:

15. The Findings of Fact and Conclusions of Law are incorporated into this decree of the Water Court.

16. Right to Withdraw Nontributary Ground Water:

The Applicant may withdraw the nontributary ground water herein through the wells listed above at the locations listed above and in the average annual amounts and at the rates of flow specified therefor, subject to the limitations herein and the retained jurisdiction by this Court.

17. Replacement Obligation for Use of Not Nontributary Ground Water Rights:

By separate application, Applicant will seek a plan for augmentation of depletions associated with the withdrawal of not nontributary Dawson, Denver, and Arapahoe ground water as described in Paragraph 7A herein and decreed hereby. No such augmentation plan is sought in this case. Judicial approval of such a plan for augmentation is a condition precedent to withdrawal and use of these resources.

18. Retained Jurisdiction:

A. The Court retains jurisdiction as necessary to adjust the average annual amounts of nontributary and not nontributary ground water available under the property to conform to actual local aquifer characteristics as determined from adequate information obtained from wells, pursuant to § 37-92-305(11), C.R.S. (1987 Supp.). Within 60 days after completion of any well decreed herein, or any test hole(s), Applicant or any successor in interest to these water rights shall obtain a geophysical log of said well(s) or test hole(s) and shall serve such log(s) upon the State Engineer and notify each of the parties who have appeared herein that copies of the log and well completion report, if the well is completed, are available for review.

B. At such time as adequate data are available and within four months of notice that the retained jurisdiction for such purpose has been invoked, the State Engineer shall use the information available to him to make a final determination of water rights finding. The State Engineer shall submit such finding to the Water Court and to the Applicant, and the Applicant shall serve a copy upon the other parties.

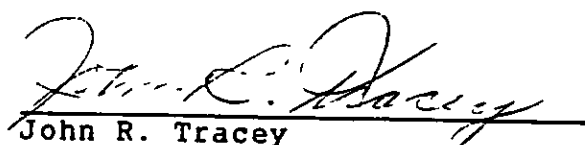
C. If no protest to such finding is made within 60 days, the Final Determination of Water Rights shall be incorporated into the decree by the Water Court. In the event of a protest, or in the event the State Engineer makes no determination within four months, such final determination shall be made by the Water Court after notice and hearing.

D. In the event Applicant fails to invoke retained jurisdiction, the State Engineer or any party hereto may do so. In the interim, the Court retains jurisdiction in this matter pursuant to § 37-92-305(11), C.R.S. (1987 Supp.).

19. Upon obtaining an augmentation for the required replacement of not nontributary withdrawals, Applicant is entitled to permits

to construct the wells described in paragraph 5 hereof which will withdraw not nontributary ground water pursuant to § 37-90-137(4), C.R.S., and such additional wells as may be required in the future to withdraw such ground water pursuant to § 37-90-137(10), C.R.S. (1985 Supp.). With the entry of this decree, Applicant is entitled to permits to construct such wells which will withdraw nontributary ground water.


DECREE ENTERED this 18 day of May, 1988.


John R. Tracey
Water Judge
Water Division No. 2
State of Colorado

APPROVED AS TO FORM AND CONTENT:

SAUNDERS, SNYDER, ROSS
& DICKSON, P.C.

Date: 8 Feb. 1988

By 
William B. Tourtillott, Jr., #184
Robert E. Schween, #12923
707 17th Street
Suite 3500
Denver, Colorado 80202
(303) 292-6600

ATTORNEYS FOR APPLICANT
PENDLETON LAND AND EXPLORATION, INC.

ANDERSON, JOHNSON, & GIANUNZIO

Date _____

By _____
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Mark T. Pipher, #12629
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Colorado Springs, Colorado 80901-02
(303) 632-3545

ATTORNEYS FOR
CITY OF COLORADO SPRINGS
and UPPER DISTRICT 10 WATER
USERS ASSOCIATION

VRANESH AND RAISCH

Date: Jan 4, 1988

By Michael D. Shimmin
Michael D. Shimmin, #9182
P.O. Box 871
Boulder, Colorado 80306
(303) 443-6151

ATTORNEYS FOR JVRC, INC.


Date. _____

By _____
Barbara Hosmer,
Committee Member
11755 Timberland Court
Colorado Springs, Colorado 80908
(303) 495-3948

REPRESENTATIVE OF
BLACK FOREST LAND USE COMMITTEE

ANDERSON, JOHNSON, & GIANUNZIO


Date: Feb 11 1988

By 
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By _____
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ANDERSON, JOHNSON, & GIANUNZIO

Date _____

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By _____
Michael D. Shimmin, #9182
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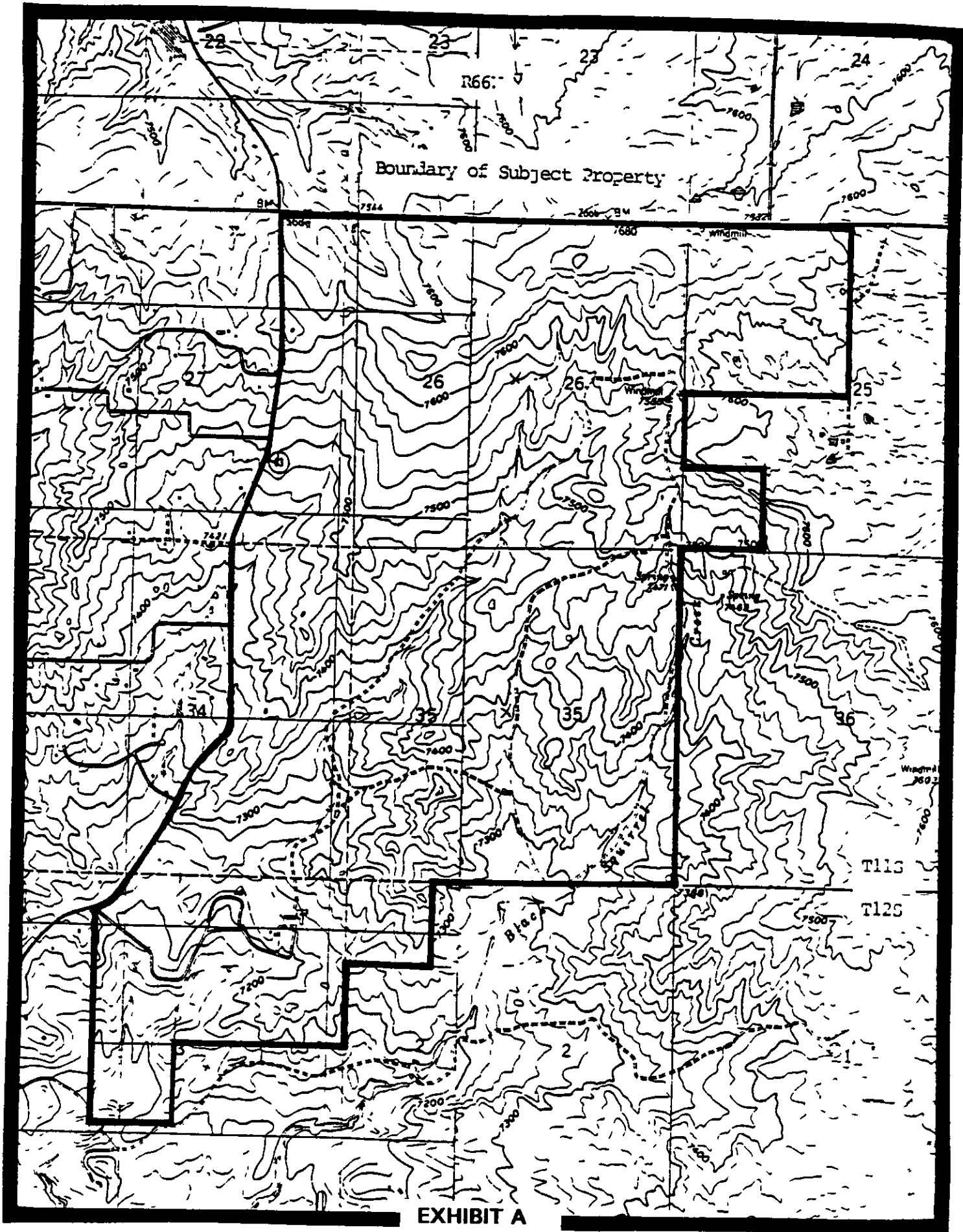
ATTORNEYS FOR JVRC, INC.

Date: 05-13-88

By Barbara Hosmer
Barbara Hosmer,
Committee Member
11755 Timberland Court
Colorado Springs, Colorado 80908
(303) 495-3948

REPRESENTATIVE OF
BLACK FOREST LAND USE COMMITTEE

xc: Robert E. Schween
Michael D. Shimmin
Black Forest Land Use Committee, pro se
Gregory L. Johnson
Division Engineer
State Engineer



GENERAL LOCATION MAP

Colorado Division of Water Resources

Colorado's Well Permit Search

THIS PAGE IS NOT THE ACTUAL PERMIT

The information contained on this page is a summary of the permit file and may not reflect all details of the well permit. [\(Full Disclaimer\)](#)

Permit Issued: Completion Status Unknown

Last Refresh: 12/6/2016 12:03:01 AM

Receipt: 3628088A **Division:** 1
Permit #: 1689-BD - **Water District:** 1
Well Name / #: **County:** EL PASO
Designated Basin: KIOWA-BDIOU **Management District:**
Case Number:
WDID:

Imaged Documents - Permit File

Document Name	Date Imaged	Annotated
Findings & Order for Determination	05/21/2009	No

Applicant/Contact

Applicant/Contact Name	Mailing Address	City/State/Zip
MCCUNE GEORGE F & EVELYN	17480 MERIDIAN RD	ELBERT, CO 80106-8916

Location Information

Approved Well Location:

Q40	Q160	Section	Township	Range	PM	Footage from Section Lines
	24	11.0S	65.0W	Sixth		
Northing (UTM y):		4325550.5		Easting (UTM x):		533176.3
Location Accuracy: Spotted from quarters						

Subdivision Name

Filing Block Lot

Parcel ID: **Acres in Tract:** 900.52

Permit Details

Date Issued: 06/25/2008 **Date Expires:**

Uses (See [Imaged Documents](#) for more information)

General Use(s): COMMERCIAL **Aquifer(s):** LARAMIE FOX HILLS
 DOMESTIC

Special Use:

Area which may be irrigated:

Annual volume of appropriation:

Statute:

Cross Reference Permit(s): Permit Number Receipt

Comments: DETER ISSUED

Construction/Usage Details

Well Construction Date: **Pump Installation Date:**
Well Plugged: **1st Beneficial Use:**

Elevation **Depth** **Perforated Casing (Top)** **Perforated Casing (Bottom)** **Static Water Level** **Pump Rate**

Application/Permit History

Permit Issued	06/25/2008
Application Received	04/17/2008

Disclaimer

***The information contained on this page is a summary of the permit file and may not reflect all details of the well permit. THIS PAGE IS NOT THE ACTUAL PERMIT.**

This page should not be used as a basis for any legal consideration, to determine the allowed uses of the well, to determine construction information, or to determine the terms and conditions under which the well can operate. The complete well permit file should be viewed to obtain details on the allowed uses and other relevant information. A complete copy of this file is available in the "Imaged Documents" section of this page, and can be viewed by opening all of the documents listed under that section (documents will open as pdf files).

Note that all of the terms and conditions under which a well can operate, particularly for non-exempt wells, may not be specified on the well permit. Wells may also be subject to relevant statutes, rules and decrees. To learn

more about well permitting in Colorado, please visit [DWR's Well Permitting Page](#). If you have any questions about this well permit file, please contact the [DWR Ground Water Information Desk](#).

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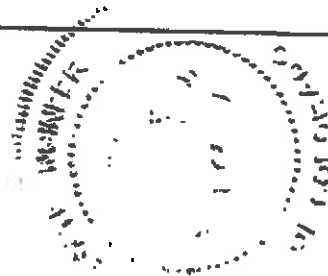
**COLORADO GROUND WATER COMMISSION
FINDINGS AND ORDER**

IN THE MATTER OF AN APPLICATION FOR DETERMINATION OF WATER RIGHT TO
ALLOW THE WITHDRAWAL OF GROUND WATER IN THE KIOWA-BIJOU DESIGNATED
GROUND WATER BASIN

APPLICANT: GEORGE F. MCCUNE AND EVELYN MCCUNE

AQUIFER: LARAMIE-FOX HILLS

DETERMINATION NO.: 1689-BD



In compliance with Section 37-90-107(7), C.R.S., and the Designated Basin Rules, 2 CCR 410-1, George F. McCune and Evelyn McCune (hereinafter "applicant") submitted an application for determination of water right to allow the withdrawal of designated ground water from the Laramie-Fox Hills Aquifer.

FINDINGS

1. The application was received complete by the Colorado Ground Water Commission on April 17, 2008.
2. The applicant requests a determination of rights to designated ground water in the Laramie-Fox Hills Aquifer (hereinafter "aquifer") underlying 900.52 acres, generally described as the SW1/4 of the SW1/4, Section 18, the W1/2 of the NW1/4 and the W1/2 of the SW1/4, Section 19, Township 11 South, Range 64 West of the 6th PM and the S1/2 of the SE1/4, Section 13 and all of Section 24, Township 11 South, Range 65 West of the 6th Principal Meridian, in El Paso County. According to a signed statement dated April 17, 2008, the applicant owns the 900.52 acres of land, as further described in said affidavit which is attached hereto as Exhibit A, and claims control of the ground water in the aquifer underlying this land area.
3. The proposed annual amount of ground water to be allocated and withdrawn from the aquifer for intended beneficial uses is the maximum allowable amount.
4. The above described land area overlying the ground water claimed by the applicant is located within the boundaries of the Kiowa-Bijou Designated Ground Water Basin. The Colorado Ground Water Commission (hereinafter "Commission") has jurisdiction.
5. The applicant intends to apply the allocated ground water to the following beneficial uses: domestic, industrial, commercial, irrigation, augmentation, stock watering, recreational water feature ponds and piscatorial habitat less than 1000 square feet and wildlife, replacement and all other augmentation purposes. The applicant's proposed place of use of the allocated ground water is the above described 900.52 acre land area.
6. The quantity of water in the aquifer underlying the 900.52 acres of land claimed by the applicant is 26300 acre-feet. This determination was based on the following as specified in the Designated Basin Rules:

- a. The average specific yield of the saturated permeable material of the aquifer underlying the land under consideration that could yield a sufficient quantity of water that may be extracted and applied to beneficial use is 15 percent.
- b. The average thickness of the saturated permeable material of the aquifer underlying the land under consideration that could yield a sufficient quantity of water that may be extracted and applied to beneficial use is 195 feet.
7. At this time, there is no substantial artificial recharge that would affect the aquifer within a one hundred year period.
8. Pursuant to Section 37-90-107(7), C.R.S., and in accordance with the Designated Basin Rules, the Commission shall allocate ground water in the aquifer based on ownership of the overlying land and an aquifer life of one hundred years. Therefore, the maximum allowed average annual amount of ground water in the aquifer that may be allocated for withdrawal pursuant to the data in the paragraphs above for the 900.52 acres of overlying land claimed by the applicant is 263 acre-feet.
9. A review of the records in the Office of the State Engineer has disclosed that none of the water in the aquifer underlying the land claimed by the applicant has been previously allocated or permitted for withdrawal.
10. Pursuant to Section 37-90-107(7)(c)(III), C.R.S., an approved determination of water right shall be considered a final determination of the amount of ground water so determined; except that the Commission shall retain jurisdiction for subsequent adjustment of such amount to conform to the actual local aquifer characteristics from adequate information obtained from well drilling or test holes.
11. The ability of wells permitted to withdraw the authorized amount of water from this non-renewable aquifer may be less than the one hundred years upon which the amount of water in the aquifer is allocated, due to anticipated water level declines.
12. In accordance with Rule 5.3.6 of the Designated Basin Rules, it has been determined that withdrawal of ground water from the aquifer underlying the land claimed by the applicant will not, within one hundred years, deplete the flow of a natural stream or its alluvial aquifer at an annual rate greater than one-tenth of one percent of the annual rate of withdrawal and, therefore, the ground water is nontributary ground water as defined in Rule 4.2.19 of the Designated Basin Rules. No more than 98% of the amount of ground water withdrawn annually shall be consumed, as required by the Designated Basin Rules.
13. In accordance with Section 37-90-107(7), C.R.S., upon Commission approval of a determination of water right, well permits for wells to withdraw the authorized amount of water from the aquifer shall be available upon application, subject to the conditions of this determination and the Designated Basin Rules and subject to approval by the Commission.
14. The Commission Staff has evaluated the application relying on the claims to control of the ground water in the aquifer made by the applicant.

15. In accordance with Sections 37-90-107(7) and 37-90-112, C.R.S., the application was published in the Ranchland News newspaper on May 8 and May 15, 2008.
16. No objections to the determination of water right and proposed allocation of ground water were received within the time limit set by statute.
17. In order to prevent unreasonable impairment to the existing water rights of others within the Kiowa-Bijou Designated Ground Water Basin it is necessary to impose conditions on the determination of water right and proposed allocation of ground water. Under conditions as stated in the following Order, no unreasonable impairment of existing water rights will occur from approval of this determination of water right or from the issuance of well permits for wells to withdraw the authorized amount of allocated ground water from the aquifer.

ORDER

In accordance with Section 37-90-107(7), C.R.S., and the Designated Basin Rules, the Colorado Ground Water Commission orders that the application for determination of rights to designated ground water in the Laramie-Fox Hills Aquifer underlying 900.52 acres of land, generally described as the SW1/4 of the SW1/4, Section 18, the W1/2 of the NW1/4 and the W1/2 of the SW1/4, Section 19, Township 11 South, Range 64 West of the 6th PM and the S1/2 of the SE1/4, Section 13 and all of Section 24, Township 11 South, Range 65 West of the 6th Principal Meridian, is approved subject to the following conditions:

18. The allowed average annual amount of withdrawal of ground water from the aquifer shall not exceed 263 acre-feet. The allowed maximum annual amount of withdrawal may exceed the allowed average annual amount of withdrawal as long as the total volume of water withdrawn does not exceed the product of the number of years since the date of approval of this determination times the allowed average annual amount of withdrawal.
19. To conform to actual aquifer characteristics, the Commission may adjust the allowed average annual amount of ground water to be withdrawn from the aquifer based on analysis of geophysical logs or other site-specific data if such analysis indicates that the initial estimate of the volume of water in the aquifer was incorrect.
20. The applicant may pump the allowed average annual amount of withdrawal and the allowed maximum annual amount of withdrawal from one or more wells of a well field in any combination, so long as the total combined withdrawal of the wells does not exceed the amounts described in this Order.
21. No more than 98% of the ground water withdrawn annually shall be consumed. The Commission may require well owners to demonstrate periodically that no more than 98% of the water withdrawn is being consumed.
22. The use of ground water from this allocation shall be limited to the following beneficial uses: domestic, industrial, commercial, irrigation, augmentation, stock watering, recreational water feature ponds and piscatorial habitat less than 1000 square feet and wildlife, replacement and all other augmentation purposes. The place of use shall be limited to the above described 900.52 acre land area.

23. The applicant, or subsequent persons controlling this water right, shall record in the public records of the county - in which the claimed overlying land is located - notice of transfer of any portion of this water right to another within sixty days after the transfer, so that a title examination of the above described 900.52 acre land area, or any part thereof, shall reveal the changes affecting this water right. Such notice shall consist of a signed and dated deed which indicates the determination number, the aquifer, a description of the above described land area, the annual amount of ground water (acre-feet) transferred, name of the recipient, and the date of transfer.
24. Subject to the above conditions, well permits for wells to withdraw the allocated annual amount of water from the aquifer shall be available upon application subject to approval by the Commission and the following conditions:
 - a. The wells shall be located on the above described 900.52 acre overlying land area.
 - b. The wells must be constructed to withdraw water from only the Laramie-Fox Hills Aquifer. Upon application for a well permit to construct such a well, the estimated top and base of the aquifer at the proposed well location will be determined by the Commission and indicated on the approved well permit. Plain non-perforated casing must be installed, grouted and sealed to prevent diversion of ground water from other aquifers and the movement of ground water between aquifers.
 - c. The entire depth of each well must be geophysically logged prior to installing the casing as set forth in Rule 9 of the Statewide Nontributary Ground Water Rules, 2 CCR 402-7.
 - d. Each well shall be constructed within 200 feet of the location specified on the approved well permit, but must be more than 600 feet from any existing large-capacity well completed in the same aquifer.
 - e. A totalizing flow meter or other Commission approved measuring device shall be installed on each well and maintained in good working order by the well owner. Annual diversion records shall be collected and maintained by the well owner and submitted to the Commission upon their request.
 - f. The well owner shall mark the well in a conspicuous place with the permit number and the name of the aquifer. The well owner shall take necessary means and precautions to preserve these markings.
25. A copy of this Findings and Order shall be recorded by the applicant in the public records of the county in which the claimed overlying land is located so that a title examination of the above described 900.52 acre overlying land area, or any part thereof, shall reveal the existence of this determination.

Applicant: George F. McCune and Evelyn McCune
Aquifer: Laramie-Fox Hills
Determination No.: 1689-BD

Dated this 25th day of June, 2008.

Dick Wolfe

Dick Wolfe, P.E.
Executive Director
Colorado Ground Water Commission

By:

Keith Vander Horst
Keith Vander Horst, P.E.
Water Resource Engineer

Prepared by: JPM

92GWS 1
03/2005

EXHIBIT A
1689-BD
Page 1 of 2

STATE OF COLORADO
OFFICE OF THE STATE ENGINEER
DIVISION OF WATER RESOURCES
1313 Sherman St. Room 821
Denver, CO 80203
(303) 866-3581 Fax (303) 866-3589

RECEIVED
APR 17 2008
WATER RESOURCES
STATE ENGINEER
COLO.

NONTRIBUTARY GROUND WATER LANDOWNERSHIP STATEMENT

I (We) George F. McCune and Evelyn McCune
(Name(s))

claim and say that I (we) am (are) the owner(s) of the following described property consisting of 900.52 acres in the County of El Paso State of Colorado:

(Insert the property legal description)

SW/4SW/4 Section 18 and W/2 of the W/2 Section 19, T11S, R64W, and S/2SE/4 Section 13 and All of Section 24, T11S R65W, 6th PM, El Paso County, 900.52 acres

See attached Quitclaim Deed dated November 29, 1976, and map.

and, that the ground water sought to be withdrawn from the Laramie-Fox Hills aquifer underlying the above-described land has not been conveyed or reserved to another, nor has consent been given to its withdrawal by another.

Further, I (we) claim and say that I (we) have read the statements made herein; know the contents hereof; and that the same are true to my (our) knowledge.

Signature George F. McCune Date _____

Signature Evelyn M. McCune Date _____

.....
INSTRUCTIONS:

Please type or print neatly in black or blue ink. This form may be reproduced by photocopy or word processing means. See additional information on the reverse side.

County of El Paso, State of Colorado, Nov 29 1976
RECEIVED AT 92
RECEIPT NO. 280187 HANDED SEALS

Best Copy Available

NOV 29 1976

RECEIVED

APR 17 2008

WATER RESOURCES
STATE ENGINEER
COLO.

SEAL

QUITCLAIM DEED

RAY C. McCUNE and GRETA C. McCUNE, as husband and wife, of the County of El Paso and State of Colorado, for the consideration of One Dollar (\$1.00) and other good and valuable consideration, in hand paid, hereby sell and quit claim to GEORGE F. McCUNE and EVELYN M. McCUNE, husband and wife, in joint tenancy, of the County of Elbert and State of Colorado, a one-half interest in and to all minerals underlying the following described property, including oil and gas, said property lying and being in the County of El Paso and State of Colorado, to wit:

The Southwest quarter of the Southwest quarter of Section Eighteen, Township Eleven, Range Sixty-four; the West half of the West half of Section Nineteen, Township Eleven, Range Sixty-four; the South half of the Southeast Quarter of Section Thirteen, Township Eleven, Range Sixty-five; All of Section Twenty-four, Township Eleven, Range Sixty-five, containing in all Nine hundred and fifty-two hundredths (900.52) acres, more or less, according to Government Survey,

with all its appurtenances.

No Consideration

DATED and signed this 22 day of Nov., 1976.

STATE DOCUMENTARY

NOV 29 1976

FEE \$ None

Ray C. McCune
Ray C. McCune

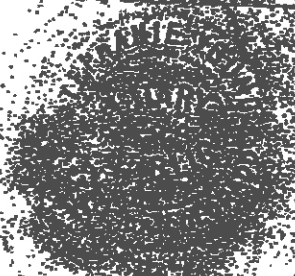
Greta C. McCune
Greta C. McCune

STATE OF COLORADO)
COUNTY OF EL PASO) ss.

The foregoing instrument was acknowledged before me this 22 day of Nov., 1976, by Ray C. McCune and Greta C. McCune.

Stephanie J. Young
Notary Public

My commission expires: 6/20/78



APR 17 2008

WATER RESOURCES
 STATE ENGINEER
 COLORADO

**APPLICATION FOR DETERMINATION OF WATER RIGHT
 WITHIN A DESIGNATED GROUND WATER BASIN
 PURSUANT TO SECTION 37-90-107(7), C.R.S.**

Please note: This application may only be used to apply for a determination of rights to ground water from the Dawson, Denver, Arapahoe or Laramie-Fox Hills aquifer underlying land areas located within a Designated Ground Water Basin. Review the instructions on the reverse of this form. This form must be completed, signed, dated and submitted to the Ground Water Commission with a non-refundable \$60 filing fee. A separate form must be used for each aquifer determination. Type or print in black ink.

1. APPLICANT INFORMATION	
Name of Applicant George F. McCune and Evelyn McCune	
Applicant Mailing Address 17480 Meridian Road, Elbert, CO 80106-8916 c/o Colorado Water Plans, P O Box 1855, Elbert, CO 80106	
Applicant Telephone Number (include area code) 303-648-0900 Contact 303 648-4201 719-495-2562	
2. AMOUNT OF OVERLYING LAND - the total and area claimed and described by the applicant in Item #8 below, consisting of 900.52 acres.	3. AQUIFER Laramie-Fox Hills NT
4. EXISTING WELLS -- Are there any wells located on the claimed and described overlying land? Yes ___ No <u>X</u> If yes, provide a complete list of all wells located on the overlying land area as an attachment to this application.	
5. ANNUAL AMOUNT OF GROUND WATER - to be withdrawn, for intended beneficial uses, from the aquifer underlying the described land area claimed by the applicant in Item #8 below. Please specify one of the following: <input checked="" type="checkbox"/> Maximum allowable annual acre-feet <input type="checkbox"/> _____ acre-feet annually <input type="checkbox"/> Maximum allowable annual acre-feet, excluding _____ acre-feet from that amount	
6. USE OF GROUND WATER - description of intended beneficial uses of the ground water to be withdrawn from the aquifer All water withdrawn will be reused, successively used, leased, sold or otherwise disposed of for the following beneficial uses: domestic, industrial, commercial, irrigation, augmentation, stock watering, recreational water feature ponds and piscatorial habitat less than 1000 square feet and wildlife. The water will be produced for immediate application to said uses, for storage and subsequent application to said uses, for replacement of depletion's from the use of water from other sources and for all other augmentation purposes	
7. PLACE OF USE - of the ground water shall be considered to be that overlying land area claimed and described by the applicant in Item #8 below, unless a legal description or accurate scale map is provided which describes an alternate/additional place of use.	
8. REQUIRED LANDOWNERSHIP DOCUMENTATION - The Ground Water Commission shall allocate ground water from the Dawson, Denver, Arapahoe or Laramie-Fox Hills aquifer on the basis of ownership of overlying land. For this reason, a Nontributary Ground Water Landownership Statement (form GWS-1) or Nontributary Ground Water Consent Claim (form GWS-48), including a description of the overlying land area subject to this determination, must be submitted as an attachment to the application.	
9. SIGNATURE OF APPLICANT - must be original signature - 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.	
Signature <u>George F. McCune</u> <u>Evelyn M. McCune</u>	Date _____
- print name and title George F. McCune and Evelyn McCune, Owners	

FOR OFFICE USE ONLY	
DIV <u>8</u> CO <u>WD</u> BASIN <u>2</u> MD _____	Trans Number: 3628088 <u>H</u> 4/17/2008 1:34:24 PM Geoff Davis (21) Total Trans Amt: \$240.00 CHECK Check Number: 9724 File # (S-5) (2006) Check Amount: \$240.00

George F. McCune and Evelyn McCune
Subsurface Water Rights

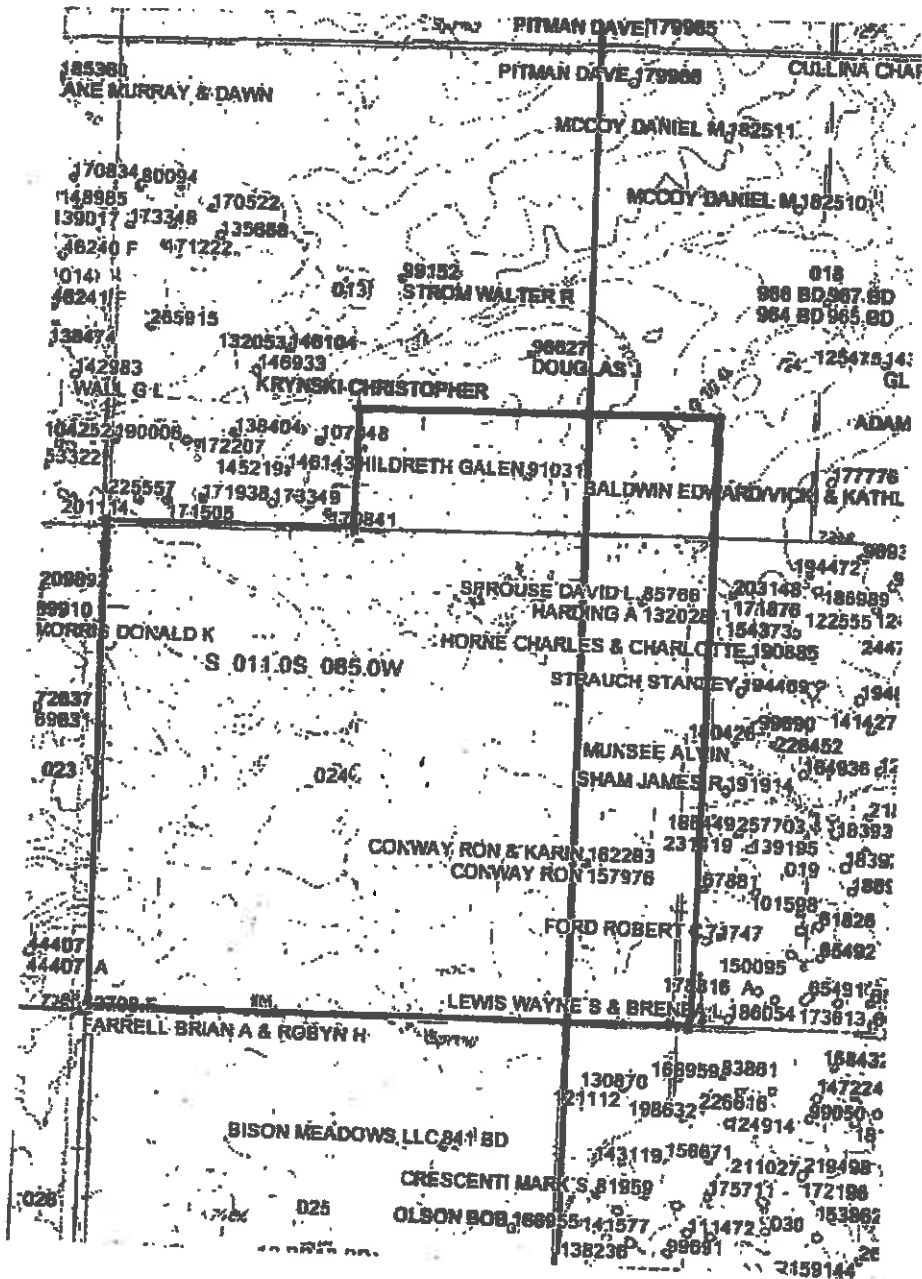
Best Copy Available

SW/4SW/4 Section 18 and W/2 of the W/2 Section 19, T11S, R64W,
and S/2SE/4 Section 13 and All of Section 24, T11S R65W, 6th PM,

RECEIVED

APR 17 2008

WATER RESOURCES
STATE ENGINEER
CCLO.



THERE ARE NO WATER WELLS ON THE PROPERTY

LOCATION MAP from CDSS

RECEIVED

APR 17 2008

WATER RESOURCES
STATE ENGINEER
COLORADO



COLORADO WATER PLANS

Water Consultants

Colorado Ground Water Commission
Division of Water Resources
Department Of Natural Resources
1313 Sherman Street - Room 818
Denver, Colorado 80203

Re: Application for Determination of Water Right
Client: George F. McCune and Evelyn McCune

Agent: Colorado Water Plans LLC

Colorado Water Plans LLC has prepared the Application for Determination of Water Right with my permission as Signatory and Landowner. Colorado Water Plans LLC shall have full representational power as "Agent" in regards to this Application for Determination of Water Right, water issues, water facts, water calculations, submittals to governmental agencies, reporting forms, newspaper public notifications, applications, or any other needs within the confines of the Contract for Services. This document shall authorize my "Agent" Colorado Water Plans LLC to manage and conduct all affairs and to exercise all my rights and powers within the enclosed Application for Determination of Water Right.

Colorado Water Plans has no rights, implied or warranted outside the affairs of this agreement, and subject to other provisions of this document, disclaim any interest which might otherwise be transferred or distributed to me from other person or entity.

Client:

By: George F. McCune & Evelyn M. McCune

By: _____

Date: 4-14-08

Colorado Water Plans LLC
Craig L. Curl
Dr. W. Jerry Koch
Lisa S. Weinstein, Esq. #35688

By: [Signature]
Date: 4-14-08

P.O. Box 1955 / Elizabeth / Colorado / 80107
Office: 303/646-3895 Fax: 303/646-9655

**DETERMINATION OF WATER RIGHT
SECTION 37-90-107(7)**

APPLICANT: George F. McCune and Evelyn McCune

BASIN: Kiowa-Bijou

COUNTY: El Paso

AQUIFER: Laramie-Fox Hills

RECEIPT NO. 3628088A

NUMBER OF ACRES IN TRACT: 900.52 acres

GENERAL LOCATION: SW/4SW/4, Section 18 and W/2NW/4, W/2SW/4, Section 19, T11S, R64W, 6th PM,
S/2SE/4, Section 13 and All of Section 24, T11S, R65W, 6th PM.

AQUIFER DATA

AMOUNT AVAILABLE FOR APPROPRIATION: (195 feet SS)(900.52 Acres)(0.15 SY) = 26340 AF 263.4 AFyr

ADJUSTMENTS: None

ANNUAL AMOUNT: 263.4 AFyr

PRE-NOV.19, 1973 WELLS (COMPLETED IN AQUIFER) IN VICINITY: N/A

OVERLAP AREA: N/A

AREA CHECKED: Sections 18, 19, and 30, T11S, R64W
Sections 13, 14, 23, 24, 25, and 26, T11S, R65W

SMALL-CAPACITY WELLS (COMPLETED IN AQUIFER) LOCATED ON CLAIMED TRACT: N/A

REPLACEMENT WATER STATUS OF CLAIMED LAND AREA: Nontributary

REPLACEMENT PLAN REQUIRED: Not Required

AQUIFER INTERVAL (CENTRAL DATA POINT): 2620 feet to 2940 feet below ground surface

COMMENTS: The SS was considered 195 feet based on the SS map for the Laramie-Fox Hills aquifer.

Evaluated by: Justina Mickelson, Ground Water Commission Staff
Reviewed by: *CBG*

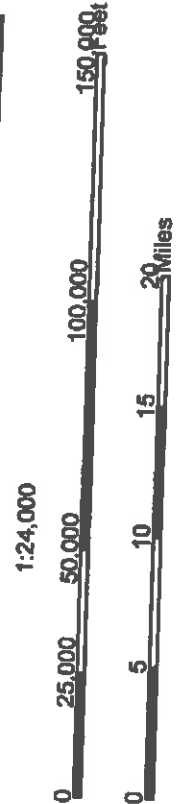
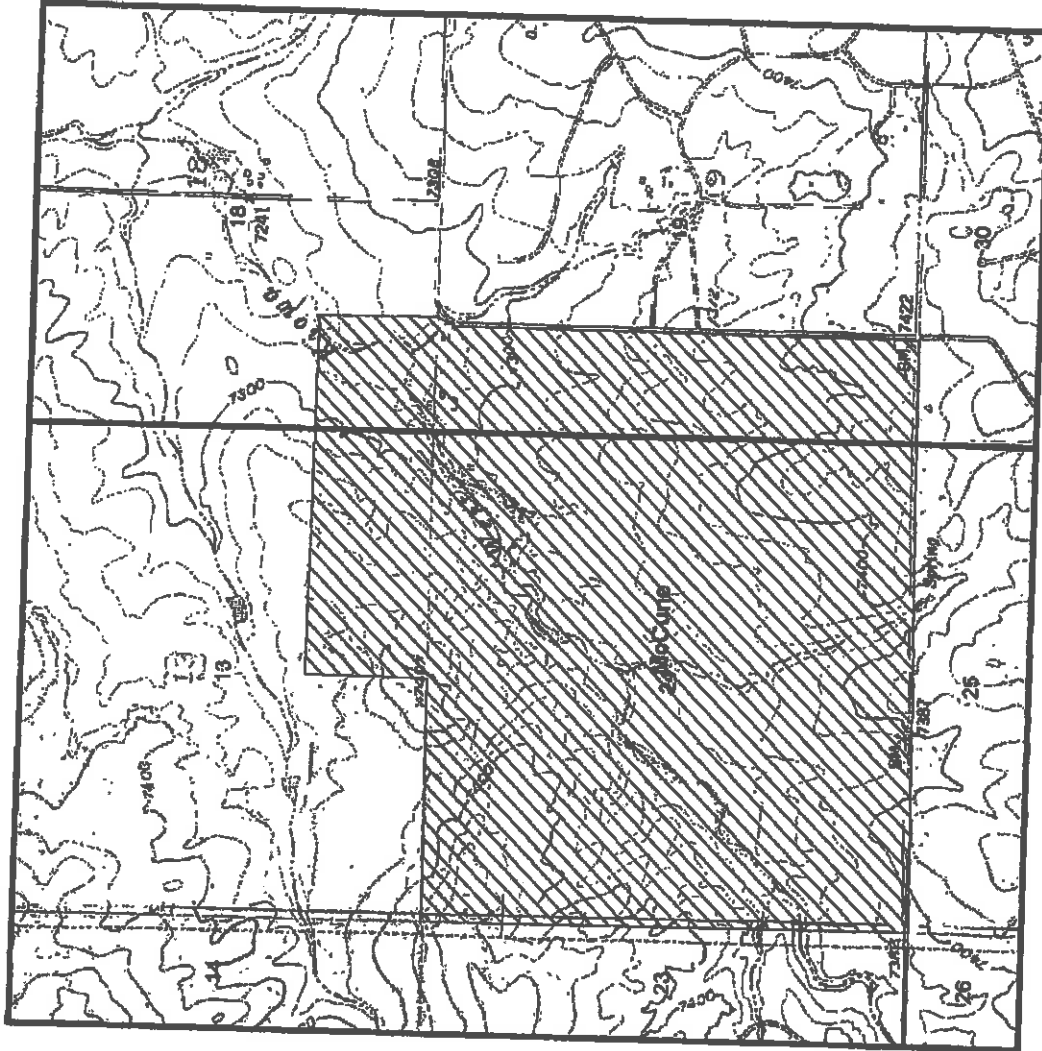
DIVISION OF WATER RESOURCES
STATE OF COLORADO

Receipt Number: 3628088A
Applicant: George F. McCune
and Evelyn McCune
Basin: Kiowa-Bijou
GWMD:
Aquifer: Laramie-Fox Hills
Sections: 13 and 24, T11S, R65W
Sections: 18 and 19, T11S, R64W
Meridian: 6
Area claimed: 900.52 acres
897 acres measured
Perimeter = 7,963 m

Legend
□ Township
--- Section
▨ jpm_work



Office of the State Engineer
Division of Water Resources
Department of Natural Resources



**DIVISION OF WATER RESOURCES
STATE OF COLORADO**

Receipt Number: 3628088A
Applicant: George F. McCune
and Evelyn McCune
Basin: Kiowa-Bijou
GWMD:
Aquifer: Laramie-Fox Hills
Sections: 13 and 24, T11S, R65W
Sections: 18 and 19, T11S, R64W
Meridian: 6
Area claimed: 900.52 acres
897.22 acres measured.
Perimeter = 7,963 m

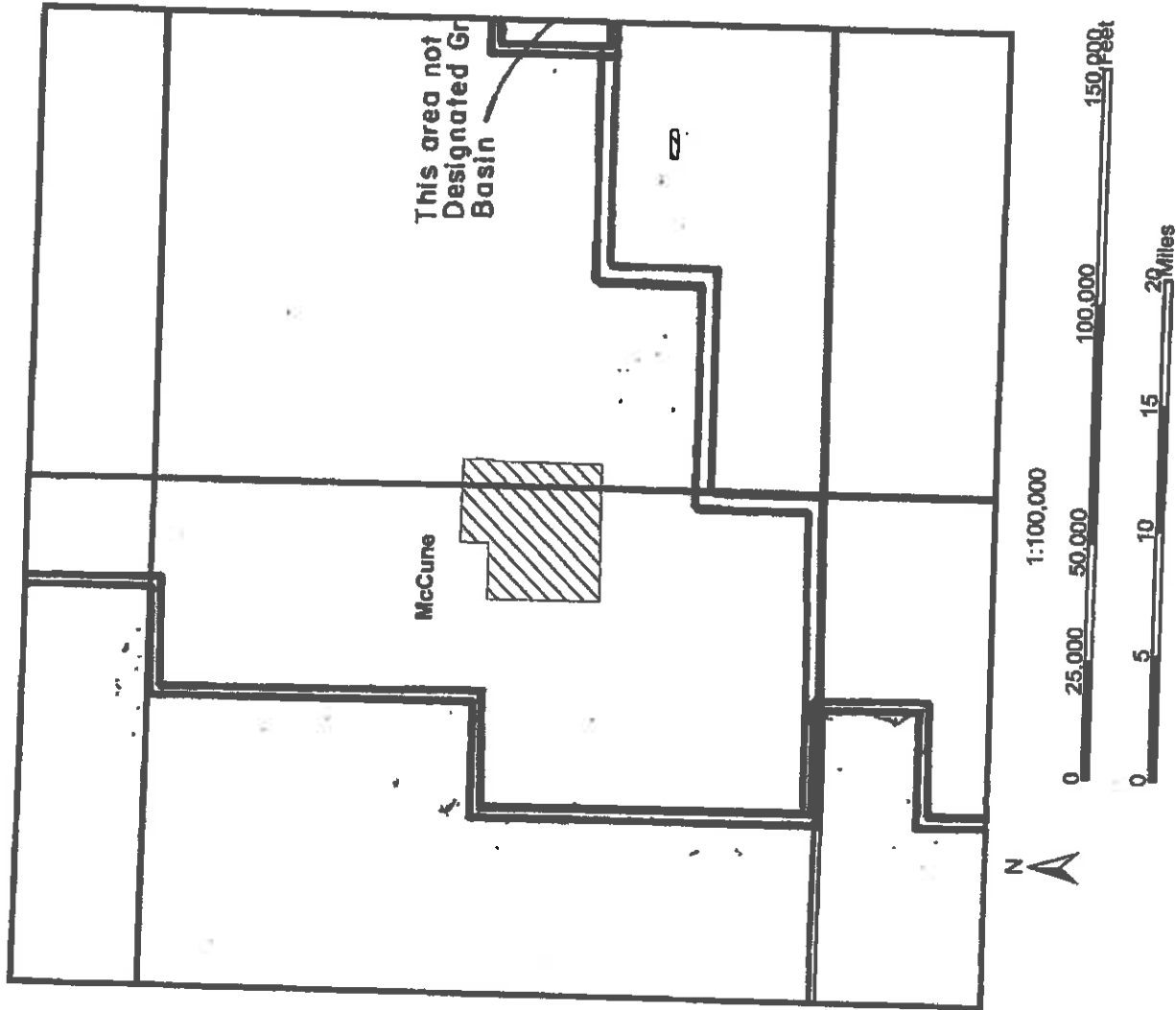
Tributary Status NT

Legend

- Township
- jpm_work



Office of the State Engineer
Division of Water Resources
Department of Natural Resources



**DIVISION OF WATER RESOURCES
STATE OF COLORADO**

Receipt Number: 3628088A
 Applicant: George F. McCune
 and Evelyn McCune
 Basin: Kiowa-Bijou
 GWMD:
 Aquifer: Laramie-Fox Hills
 Sections: 13 and 24, T11S, R65W
 Sections: 18 and 19, T11S, R64W
 Meridian: 6

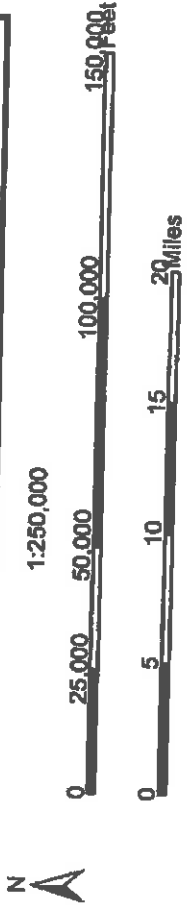
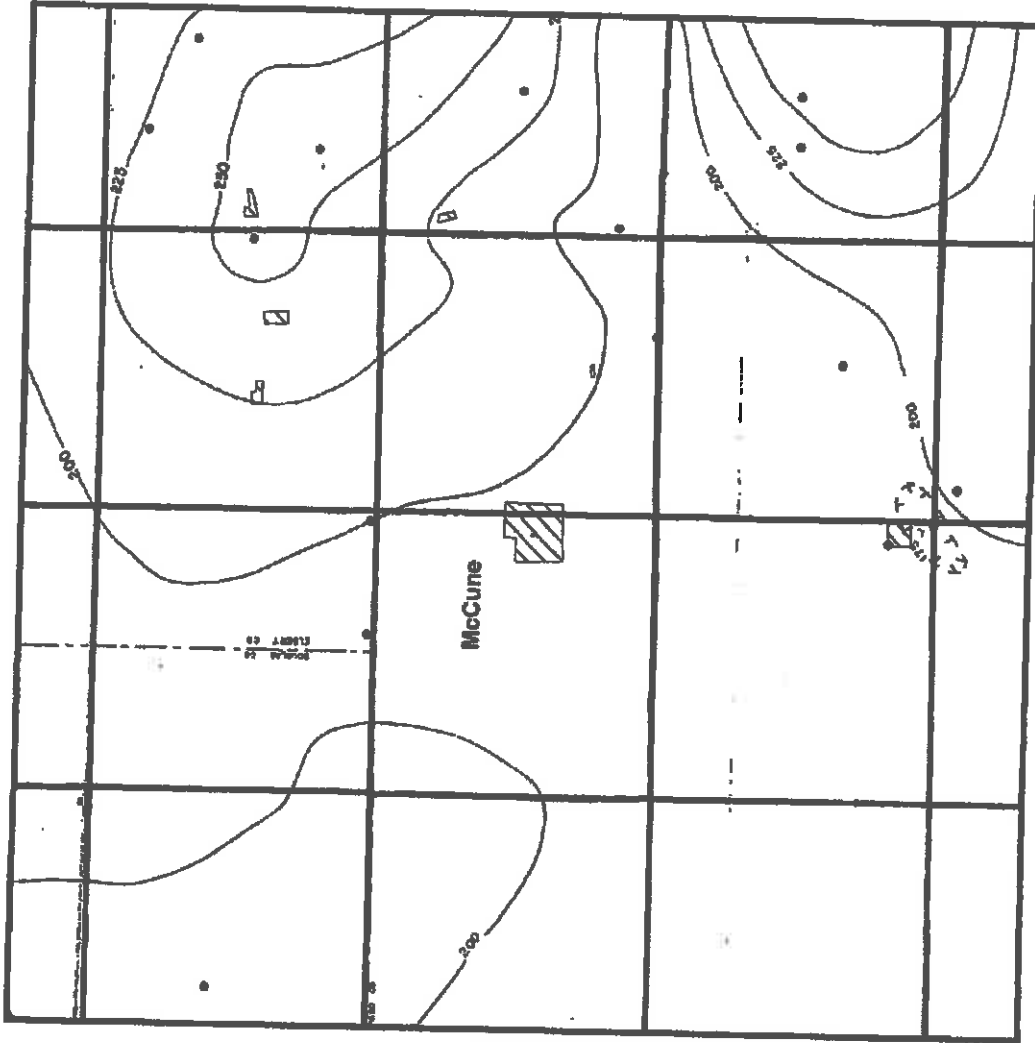
Area claimed: 900.52 acres
 897.22 acres measured
 Perimeter = 7,963 m

Saturated Sands

Legend
 □ Township
 ▨ jpm_work



Office of the State Engineer
 Division of Water Resources
 Department of Natural Resources





DEPARTMENT OF NATURAL RESOURCES

DIVISION OF WATER RESOURCES

Bill Ritter, Jr.
Governor

Harris D. Sherman
Executive Director

Dick Wolfe, P.E.
Director

May 1, 2008

George F. McCune and Evelyn McCune
c/o Colorado Water Plans
P.O. Box 1955
Elizabeth, CO 80107

RE: Applications for Determinations of Water Right to Appropriate Ground Water from the Laramie-Fox Hills, Arapahoe, Denver, and Dawson Aquifers Underlying a 900.52-Acre Tract,

Receipt Nos. 3628088A-D

Dear Mr. and Mrs. McCune:

Enclosed is a copy of the legal notice to be published in the Ranchland News newspaper as required for the above described applications. If you find any errors or omissions in the notice, please contact this office by phone as soon as possible so that corrections may be made prior to publication. This office will bill you at a later time for the actual cost of this publication.

If you have any questions concerning these applications, please contact me at this office.

Sincerely,

Justina Mickelson
Physical Science Researcher Scientist
Designated Basins Branch

Enclosures: a/s
cc: George and Evelyn McCune

Office of the State Engineer

1313 Sherman Street, Suite 818 • Denver, CO 80203 • Phone: 303-866-3581 • Fax: 303-866-3589

www.water.state.co.us

OFFICE OF THE STATE ENGINEER
Division of Water Resources – Department of Natural Resources
1313 Sherman St, Room 818, Denver, Colorado 80203
Phone 303-866-3581 – FAX 303-866-3589 – www.water.state.co.us

May 1, 2008

Ranchland News
PO Box 307
Simla, CO 80835

Applicant: George F. McCune and Evelyn McCune

-EMAIL- DOCUMENT TRANSFER-

Please publish the enclosed legal notice in your editions of May 8, 2008 and May 15, 2008, or as close to these dates as possible. Please single-space all the enclosed material in your standard single column legal notice format. Font size shall not be less than six-point type and not more than nine-point in size.

Prior to publishing the legal notice, a proof copy must be submitted to this office for approval. The Ground Water Commission staff will inspect the proof copy and a reply as to its correctness will be made immediately by phone to your office. The proof copy must be directed to the attention of Justina Mickelson, Colorado Division of Water Resource at the above address, or by email justina.mickelson@state.co.us or fax 303-866-3589.

The state Controller and the State Purchasing Agent require that four copies of the billing and four copies of the proof of publication affidavit must be received in order to process billing invoices for legal notice publications. Two copies of the proof of publication must be notarized.

Since we must re-bill the applicant prior to the official action concerning their application request, please transmit the billing copies together with the proofs of publication as soon as possible.

Should you have any questions concerning publication of this notice, please contact this office.

Sincerely,

Justina Mickelson
Physical Science Researcher Scientist
Designated Basins Branch

Enclosure (a/s)

cc: Robert R. Loose, Commission Member

BEFORE THE COLORADO GROUND WATER COMMISSION

KIOWA-BIJOU DESIGNATED GROUND WATER BASIN- EL PASO COUNTY

TAKE NOTICE that pursuant to Section 37-90-107(7), C.R.S., George F. McCune and Evelyn McCune (hereinafter "applicant") have applied for determinations of water right to allow the withdrawal of designated ground water from the Laramie-Fox Hills, Arapahoe, Denver, and Dawson aquifers underlying 900.52 acres generally described as the SW1/4 of the SW1/4, Section 18, the W1/2 of the NW1/4 and the W1/2 of the SW1/4, Section 19, Township 11 South, Range 64 West of the 6th PM and the S1/2 of the SE1/4, Section 13 and all of Section 24, Township 11 South, Range 65 West of the 6th PM. The applicant claims ownership of this land and control of the ground water in the above-described aquifers under this property. The ground water allocations from these aquifers will be used on the described property for the following beneficial uses: domestic, industrial, commercial, irrigation, augmentation, stock watering, recreational water feature ponds and piscatorial habitat less than 1000 square feet and wildlife, replacement and all other augmentation purposes. The maximum allowable annual amount of ground water in each aquifer underlying the described property will be allocated.

In accordance with Section 37-90-107(7), C.R.S., and the Designated Basin Rules, 2 CCR 410-1, the Colorado Ground Water Commission shall allocate ground water from the above-described aquifers based on ownership of the overlying land and an aquifer life of one hundred years. A preliminary evaluation of the applications by the Commission Staff finds the annual amount of water available for allocation from each of the described aquifers underlying the above-described property to be as follows: 263.4 acre-feet for the Laramie-Fox Hills, 398.0 acre-feet for the Arapahoe, 528.2 acre-feet for the Denver, and 819.5 for the Dawson subject to final staff evaluation. The estimated available annual acre-feet allocation amount for each aquifer indicated above may be increased or decreased by the Commission to conform to the actual aquifer characteristics, based upon site specific data.

In accordance with Rule 5.3.6 of the Designated Basin Rules, the Commission Staff's preliminary evaluation of the applications finds the replacement water requirement status for the above aquifers underlying the above-described property to be as follows: nontributary for the Laramie-Fox Hills, nontributary for the Arapahoe, nontributary for the Denver, and nontributary (actual impact replacement) for the Dawson.

Upon Commission approval of these determinations of water right, well permits for wells to withdraw the allowed allocation from a specific aquifer shall be available upon application, subject to the conditions of the determination and the Designated Basin Rules and subject to approval by the Commission. Such wells must be completed in the specified aquifer and located on the above described 900.52 acre property. Well permits for wells to withdraw ground water from the Dawson aquifer would also be subject to the conditions of a replacement plan to be approved by the Commission.

Any person wishing to object to the approval of these determinations of water right must do so in writing, briefly stating the nature of the objection and indicating the above applicant, property description and the specific aquifers that are the subject of the objection. The objection must be accompanied by a \$10 per aquifer fee and must be received by the Commission Staff, Colorado Ground Water Commission, 818 Centennial Building, 1313 Sherman Street, Denver, Colorado 80203, by June 16, 2008.

PUBLISHER'S AFFIDAVIT

STATE OF COLORADO)
) ss.
COUNTY OF ELBERT)

I, Susan Lister, do solemnly affirm that I am the Publisher of RANGLAND NEWS; that the same is a weekly newspaper published at Simla, County of Elbert, State of Colorado, and has a general circulation therein; that said newspaper has been continuously and uninterruptedly published in said County of Elbert for a period of at least 52 consecutive weeks next prior to the first publication of the annexed notice, that said newspaper is entered in the post office at Calhan, Colorado as second class mail matter and that said newspaper is a newspaper within the meaning of the Act of the General Assembly of the State of Colorado, approved March 30, 1923, and entitled "Legal Notices and Advertisements," with other Acts relating to the printing and publishing of legal notices and advertisements. That the annexed notice was published in the regular and entire issue of said newspaper, once each week for two successive weeks; that the first publication of said notice was in the issue of said newspaper dated:

May 8, 2008

and the last publication of said notice was in the issue of said newspaper dated:

May 15, 2008

and that copies of each number of said paper in which said notice and/or list was published were delivered by carriers or transmitted by mail to each of the subscribers of said newspaper, Rangeland News, according to the accustomed mode of business in this office.

Susan Lister
Publisher

The above certificate of publication was subscribed and affirmed to before me, a Notary Public, to be the identical person described in the above certificate, on the

15 day of May, 2008
[Signature]
Notary Public

1/22/12
(My Notary Public Commission Expiration Date)

Determinations of Water

Right

BEFORE THE COLORADO GROUND WATER COMMISSION

KIOWA-BUOU DESIGNATED GROUND WATER BASIN- EL PASO COUNTY

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First Publication May 8, 2008
Final Publication May 15, 2008
In Rangeland News
Legal No. 12,936

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MAY 19 2008

WATER RESOURCES
STAFF ENGINEER
COLO.

PUBLISHER'S AFFIDAVIT

STATE OF COLORADO)
) ss.
COUNTY OF ELBERT)

I, Susan Lister, do solemnly affirm that I am the Publisher of RANGLAND NEWS; that the same is a weekly newspaper published at Simla, County of Elbert, State of Colorado, and has a general circulation herein; that said newspaper has been continuously and uninterrupted published in said County of Elbert for a period of at least 52 consecutive weeks next prior to the first publication of the annexed notice, that said newspaper is entered in the post office at Calhan, Colorado as second class mail matter and that said newspaper is a newspaper within the meaning of the Act of the General Assembly of the State of Colorado, approved March 30, 1923, and entitled "Legal Notices and Advertisements," with other Acts relating to the printing and publishing of legal notices and advertisements. That the annexed notice was published in the regular and entire issue of said newspaper, once each week for two successive weeks; that the first publication of said notice was in the issue of said newspaper dated:

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Susan Lister
Publisher

The above certificate of publication was subscribed and affirmed to before me, a Notary Public, to be the identical person described in the above certificate, on the

15 day of May, 2008
Susan Lister
Notary Public

1/22/12
(Notary Public Commission Expiration Date)

Determinations of Water Right

BEFORE THE COLORADO GROUND WATER COMMISSION

KIOWA-BIJOU DESIGNATED GROUND WATER BASIN- EL PASO COUNTY

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MAY 19 2008

WATER RESOURCES
STATE ENGINEER
COLORADO

Ranchland News
115 Sioux Avenue, PO Box 307
Simla CO 80835

Invoice	5/ 8/2008	3
	DATE	NUMBER

RECEIVED

MAY 19 2008

WATER RESOURCES
STATE ENGINEER
C.C.O.

ID# 192

Colorado Ground Water Commission
1313 Sherman Street, Room 818
Denver CO 80203

Date	Description	Units	Amount
05/08/2008	Legal - 11.5 Picas McCune, legal 12,936	89.000	43.97
05/15/2008	Legal - Rerun - 11.5 Picas McCune, legal 12,936	89.000	30.71
***** Total			74.68



DEPARTMENT OF NATURAL RESOURCES

DIVISION OF WATER RESOURCES

RECEIVED

JUN 02 2008

WATER RESOURCES
STATE ENGINEER
COLO.

Bill Ritter, Jr.
Governor

Harris D. Sherman
Executive Director

Dick Wolfe, P.E.
Director

May 21, 2008

George F. McCune and Evelyn McCune
c/o Colorado Water Plans
P.O. Box 1955
Elizabeth, CO 80107

Invoice No. 08-PUB-220

INVOICE

Pursuant to Section 37-90-116, C.R.S., applicants are required to pay for the actual expense of publication for determinations of water right, well permit and change of water right applications.

Your application for determinations of water right to appropriate ground water from the Laramie-Fox Hills, Arapahoe, Denver, and Dawson aquifers was published in the Ranchland News newspaper on May 8 and May 15, 2008.

The following cost was incurred:

1. Actual cost of publication: \$74.68
2. Additional fees: none

PAYABLE TO: DIVISION OF WATER RESOURCES \$74.68

Your application cannot be considered for approval until the charges are paid.
Please return the enclosed copy of this invoice with remittance within thirty (30) days.

(A copy of the publication affidavit is enclosed for your records.)

Sincerely,

Justina P. Mickelson
Physical Science Researcher Scientist
Designated Basins Branch

Enclosures (a/s)

Trans Number: 3629687
6/2/2008 9:32:21 AM
Debbie Gonzales (20)
Total Trans Amt: \$231.58
CHECK
Check Number: 9784
Check Amount: \$231.58

Office of the State Engineer

1313 Sherman Street, Suite 818 • Denver, CO 80203 • Phone: 303-866-3581 • Fax: 303-866-3589

www.water.state.co.us



DEPARTMENT OF NATURAL RESOURCES

DIVISION OF WATER RESOURCES

June 27, 2008

Bill Ritter, Jr.
Governor

Harris D. Sherman
Executive Director

Dick Wolfe, P.E.
Director

George F. and Evelyn McCune
17480 Meridian Road
Elbert, CO 80106-8916

RE: Determination of Water Right

Dear Mr. and Mrs. McCune:

Enclosed is a copy of the Colorado Ground Water Commission's Findings and Order for Determination of Water Right No. 1689-BD, for the allocation of ground water in the Laramie-Fox Hills aquifer. This Findings and Order is the Commission's approval of your application for determination of right to ground water in the above stated aquifer. This document contains important information about your water right and should be reviewed and retained for your records.

As indicated in the Order, a copy of this determination must be recorded by the applicant in the public records of the county – in which the overlying land is located – so that a title examination of the overlying land claimed in the application, or any part thereof, shall reveal this determination. An additional copy of the Findings and Order is enclosed for this purpose.

If you have any questions, please contact this office.

Sincerely,

Justina P. Mickelson
Physical Science Researcher Scientist
Designated Basins Branch

Enclosures: a/s

Office of the State Engineer

1313 Sherman Street, Suite 818 • Denver, CO 80203 • Phone: 303-866-3581 • Fax: 303-866-3589

www.water.state.co.us

Colorado Division of Water Resources

Colorado's Well Permit Search

THIS PAGE IS NOT THE ACTUAL PERMIT

The information contained on this page is a summary of the permit file and may not reflect all details of the well permit. [\(Full Disclaimer\)](#)

Permit Issued: Completion Status Unknown

Last Refresh: 12/6/2016 12:03:01 AM

Receipt: 3628088B **Division:** 1
Permit #: 1690-BD - **Water District:** 1
Well Name / #: **County:** EL PASO
Designated Basin: KIOWA-BIJOU **Management District:**
Case Number:
WDID:

[-] Imaged Documents - Permit File

Document Name	Date Imaged	Annotated
Findings & Order for Determination	05/21/2009	No

[-] Applicant/Contact

Applicant/Contact Name	Mailing Address	City/State/Zip
MCCUNE GEORGE F & EVELYN	17480 MERIDIAN RD	ELBERT, CO 80106-8916

[-] Location Information

Approved Well Location:

Q40	Q160	Section	Township	Range	PM	Footage from Section Lines
		24	11.0S	65.0W	S6th	
Northing (UTM y):		4325550.5		Easting (UTM x):		533176.3
Location Accuracy: Spotted from quarters						

Subdivision Name

Filing Block Lot

Parcel ID: Acres in Tract: 900.52

[-] Permit Details

Date Issued: 06/25/2008 Date Expires:

Uses (See [Imaged Documents](#) for more information)

General Use(s): COMMERCIAL Aquifer(s): ARAPAHOE
 DOMESTIC

Special Use:

Area which may be irrigated:

Annual volume of appropriation:

Statute:

Cross Reference Permit(s): Permit Number Receipt

Comments: DETER ISSUED

[-] Construction/Usage Details

Well Construction Date: Pump Installation Date:
 Well Plugged: 1st Beneficial Use:

Elevation Depth Perforated Casing (Top) Perforated Casing (Bottom) Static Water Level Pump Rate

[-] Application/Permit History

Permit Issued 06/25/2008
 Application Received 04/17/2008

Disclaimer

***The information contained on this page is a summary of the permit file and may not reflect all details of the well permit. THIS PAGE IS NOT THE ACTUAL PERMIT.**

This page should not be used as a basis for any legal consideration, to determine the allowed uses of the well, to determine construction information, or to determine the terms and conditions under which the well can operate. The complete well permit file should be viewed to obtain details on the allowed uses and other relevant information. A complete copy of this file is available in the "Imaged Documents" section of this page, and can be viewed by opening all of the documents listed under that section (documents will open as pdf files).

Note that all of the terms and conditions under which a well can operate, particularly for non-exempt wells, may not be specified on the well permit. Wells may also be subject to relevant statutes, rules and decrees. To learn

more about well permitting in Colorado, please visit [DWR's Well Permitting Page](#). If you have any questions about this well permit file, please contact the [DWR Ground Water Information Desk](#).

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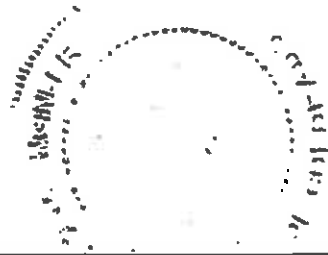
**COLORADO GROUND WATER COMMISSION
FINDINGS AND ORDER**

IN THE MATTER OF AN APPLICATION FOR DETERMINATION OF WATER RIGHT TO ALLOW THE WITHDRAWAL OF GROUND WATER IN THE KIOWA-BIJOU DESIGNATED GROUND WATER BASIN

APPLICANT: GEORGE F. MCCUNE AND EVELYN MCCUNE

AQUIFER: ARAPAHOE

DETERMINATION NO.: 1690-BD



In compliance with Section 37-90-107(7), C.R.S., and the Designated Basin Rules, 2 CCR 410-1, George F. McCune and Evelyn McCune (hereinafter "applicant") submitted an application for determination of water right to allow the withdrawal of designated ground water from the Arapahoe Aquifer.

FINDINGS

1. The application was received complete by the Colorado Ground Water Commission on April 17, 2008.
2. The applicant requests a determination of rights to designated ground water in the Arapahoe Aquifer (hereinafter "aquifer") underlying 900.52 acres, generally described as the SW1/4 of the SW1/4, Section 18, the W1/2 of the NW1/4 and the W1/2 of the SW1/4, Section 19, Township 11 South, Range 64 West of the 6th PM and the S1/2 of the SE1/4, Section 13 and all of Section 24, Township 11 South, Range 65 West of the 6th Principal Meridian, in El Paso County. According to a signed statement dated April 17, 2008, the applicant owns the 900.52 acres of land, as further described in said affidavit which is attached hereto as Exhibit A, and claims control of the ground water in the aquifer underlying this land area.
3. The proposed annual amount of ground water to be allocated and withdrawn from the aquifer for intended beneficial uses is the maximum allowable amount.
4. The above described land area overlying the ground water claimed by the applicant is located within the boundaries of the Kiowa-Bijou Designated Ground Water Basin. The Colorado Ground Water Commission (hereinafter "Commission") has jurisdiction.
5. The applicant intends to apply the allocated ground water to the following beneficial uses: domestic, industrial, commercial, irrigation, augmentation, stock watering, recreational water feature ponds and piscatorial habitat less than 1000 square feet and wildlife, replacement and all other augmentation purposes. The applicant's proposed place of use of the allocated ground water is the above described 900.52 acre land area.
6. The quantity of water in the aquifer underlying the 900.52 acres of land claimed by the applicant is 39800 acre-feet. This determination was based on the following as specified in the Designated Basin Rules:

- a. The average specific yield of the saturated permeable material of the aquifer underlying the land under consideration that could yield a sufficient quantity of water that may be extracted and applied to beneficial use is 17 percent.
- b. The average thickness of the saturated permeable material of the aquifer underlying the land under consideration that could yield a sufficient quantity of water that may be extracted and applied to beneficial use is 260 feet.
7. At this time, there is no substantial artificial recharge that would affect the aquifer within a one hundred year period.
8. Pursuant to Section 37-90-107(7), C.R.S., and in accordance with the Designated Basin Rules, the Commission shall allocate ground water in the aquifer based on ownership of the overlying land and an aquifer life of one hundred years. Therefore, the maximum allowed average annual amount of ground water in the aquifer that may be allocated for withdrawal pursuant to the data in the paragraphs above for the 900.52 acres of overlying land claimed by the applicant is 398 acre-feet.
9. A review of the records in the Office of the State Engineer has disclosed that none of the water in the aquifer underlying the land claimed by the applicant has been previously allocated or permitted for withdrawal.
10. Pursuant to Section 37-90-107(7)(c)(III), C.R.S., an approved determination of water right shall be considered a final determination of the amount of ground water so determined; except that the Commission shall retain jurisdiction for subsequent adjustment of such amount to conform to the actual local aquifer characteristics from adequate information obtained from well drilling or test holes.
11. The ability of wells permitted to withdraw the authorized amount of water from this non-renewable aquifer may be less than the one hundred years upon which the amount of water in the aquifer is allocated, due to anticipated water level declines.
12. In accordance with Rule 5.3.6 of the Designated Basin Rules, it has been determined that withdrawal of ground water from the aquifer underlying the land claimed by the applicant will not, within one hundred years, deplete the flow of a natural stream or its alluvial aquifer at an annual rate greater than one-tenth of one percent of the annual rate of withdrawal and, therefore, the ground water is nontributary ground water as defined in Rule 4.2.19 of the Designated Basin Rules. No more than 98% of the amount of ground water withdrawn annually shall be consumed, as required by the Designated Basin Rules.
13. In accordance with Section 37-90-107(7), C.R.S., upon Commission approval of a determination of water right, well permits for wells to withdraw the authorized amount of water from the aquifer shall be available upon application, subject to the conditions of this determination and the Designated Basin Rules and subject to approval by the Commission.
14. The Commission Staff has evaluated the application relying on the claims to control of the ground water in the aquifer made by the applicant.

15. In accordance with Sections 37-90-107(7) and 37-90-112, C.R.S., the application was published in the Ranchland News newspaper on May 8 and May 15, 2008.
16. No objections to the determination of water right and proposed allocation of ground water were received within the time limit set by statute.
17. In order to prevent unreasonable impairment to the existing water rights of others within the Kiowa-Bijou Designated Ground Water Basin it is necessary to impose conditions on the determination of water right and proposed allocation of ground water. Under conditions as stated in the following Order, no unreasonable impairment of existing water rights will occur from approval of this determination of water right or from the issuance of well permits for wells to withdraw the authorized amount of allocated ground water from the aquifer.

ORDER

In accordance with Section 37-90-107(7), C.R.S., and the Designated Basin Rules, the Colorado Ground Water Commission orders that the application for determination of rights to designated ground water in the Arapahoe Aquifer underlying 900.52 acres of land, generally described as the SW1/4 of the SW1/4, Section 18, the W1/2 of the NW1/4 and the W1/2 of the SW1/4, Section 19, Township 11 South, Range 64 West of the 6th PM and the S1/2 of the SE1/4, Section 13 and all of Section 24, Township 11 South, Range 65 West of the 6th Principal Meridian, is approved subject to the following conditions:

18. The allowed average annual amount of withdrawal of ground water from the aquifer shall not exceed 398 acre-feet. The allowed maximum annual amount of withdrawal may exceed the allowed average annual amount of withdrawal as long as the total volume of water withdrawn does not exceed the product of the number of years since the date of approval of this determination times the allowed average annual amount of withdrawal.
19. To conform to actual aquifer characteristics, the Commission may adjust the allowed average annual amount of ground water to be withdrawn from the aquifer based on analysis of geophysical logs or other site-specific data if such analysis indicates that the initial estimate of the volume of water in the aquifer was incorrect.
20. The applicant may pump the allowed average annual amount of withdrawal and the allowed maximum annual amount of withdrawal from one or more wells of a well field in any combination, so long as the total combined withdrawal of the wells does not exceed the amounts described in this Order.
21. No more than 98% of the ground water withdrawn annually shall be consumed. The Commission may require well owners to demonstrate periodically that no more than 98% of the water withdrawn is being consumed.
22. The use of ground water from this allocation shall be limited to the following beneficial uses: domestic, industrial, commercial, irrigation, augmentation, stock watering, recreational water feature ponds and piscatorial habitat less than 1000 square feet and wildlife, replacement and all other augmentation purposes. The place of use shall be limited to the above described 900.52 acre land area.

23. The applicant, or subsequent persons controlling this water right, shall record in the public records of the county - in which the claimed overlying land is located - notice of transfer of any portion of this water right to another within sixty days after the transfer, so that a title examination of the above described 900.52 acre land area, or any part thereof, shall reveal the changes affecting this water right. Such notice shall consist of a signed and dated deed which indicates the determination number, the aquifer, a description of the above described land area, the annual amount of ground water (acre-feet) transferred, name of the recipient, and the date of transfer.
24. Subject to the above conditions, well permits for wells to withdraw the allocated annual amount of water from the aquifer shall be available upon application subject to approval by the Commission and the following conditions:
 - a. The wells shall be located on the above described 900.52 acre overlying land area.
 - b. The wells must be constructed to withdraw water from only the Arapahoe Aquifer. Upon application for a well permit to construct such a well, the estimated top and base of the aquifer at the proposed well location will be determined by the Commission and indicated on the approved well permit. Plain non-perforated casing must be installed, grouted and sealed to prevent diversion of ground water from other aquifers and the movement of ground water between aquifers.
 - c. The entire depth of each well must be geophysically logged prior to installing the casing as set forth in Rule 9 of the Statewide Nontributary Ground Water Rules, 2 CCR 402-7.
 - d. Each well shall be constructed within 200 feet of the location specified on the approved well permit, but must be more than 600 feet from any existing large-capacity well completed in the same aquifer.
 - e. A totalizing flow meter or other Commission approved measuring device shall be installed on each well and maintained in good working order by the well owner. Annual diversion records shall be collected and maintained by the well owner and submitted to the Commission upon their request.
 - f. The well owner shall mark the well in a conspicuous place with the permit number and the name of the aquifer. The well owner shall take necessary means and precautions to preserve these markings.
25. A copy of this Findings and Order shall be recorded by the applicant in the public records of the county in which the claimed overlying land is located so that a title examination of the above described 900.52 acre overlying land area, or any part thereof, shall reveal the existence of this determination.

Applicant: George F. McCune and Evelyn McCune
Aquifer: Arapahoe
Determination No.: 1690-BD

Page 5

Dated this 25th day of June, 2008.

Dick Wolfe

Dick Wolfe, P.E.
Executive Director
Colorado Ground Water Commission

By:

Keith Vander Horst

Keith Vander Horst, P.E.
Water Resource Engineer

Prepared by: JPM

92GWS 1
03/2005

EXHIBIT A

1690-BD

Page 1 of 2

STATE OF COLORADO
OFFICE OF THE STATE ENGINEER
DIVISION OF WATER RESOURCES
1313 Sherman St. Room 821
Denver, CO 80203
(303) 866-3581 Fax (303) 866-3589

RECEIVED

APR 17 2008

WATER RESOURCES
STATE ENGINEER
COLO.

NONTRIBUTARY GROUND WATER LANDOWNERSHIP STATEMENT

I (We) George F. McCune and Evelyn McCune
(Name(s))

claim and say that I (we) am (are) the owner(s) of the following described property consisting of 900.52 acres in the County of El Paso, State of Colorado:

(Insert the property legal description)

SW/4SW/4 Section 18 and W/2 of the W/2 Section 19, T11S, R64W, and S/2SE/4 Section 13 and All of Section 24, T11S R65W, 6th PM, El Paso County, 900.52 acres

See attached Quitclaim Deed dated November 29, 1976, and map.

and, that the ground water sought to be withdrawn from the Arapahoe aquifer underlying the above-described land has not been conveyed or reserved to another, nor has consent been given to its withdrawal by another.

Further, I (we) claim and say that I (we) have read the statements made herein; know the contents hereof; and that the same are true to my (our) knowledge.

Signature George F. McCune Date _____

Signature Evelyn M. McCune Date _____

.....
INSTRUCTIONS:

Please type or print neatly in black or blue ink. This form may be reproduced by photocopy or word processing means. See additional information on the reverse side.

RECEIVED AT 912... NOV 29 1976... RECEIVED BY 250257... HANDED TO...

2077-187

RECEIVED

APR 17 2008

WATER RESOURCES STATE ENGINEER COLO.

Best Copy Available

QUITCLAIM DEED

RAY C. McCUNE and GRETA C. McCUNE, as husband and wife, of the County of El Paso and State of Colorado, for the consideration of One Dollar (\$1.00) and other good and valuable consideration, in hand paid, hereby sell and quit claim to GEORGE F. McCUNE and EVELYN M. McCUNE, husband and wife, in joint tenancy, of the County of Elbert and State of Colorado, a one-half interest in and to all minerals underlying the following described property, including oil and gas, said property lying and being in the County of El Paso and State of Colorado, to wit:

The Southwest quarter of the Southwest quarter of Section Eighteen, Township Eleven, Range Sixty-four; the West half of the West half of Section Nineteen, Township Eleven, Range Sixty-four; the South half of the Southeast Quarter of Section Thirteen, Township Eleven, Range Sixty-five; All of Section Twenty-four, Township Eleven, Range Sixty-five, containing in all Nine hundred and fifty-two hundredths (900.52) acres, more or less, according to Government Survey.

with all its appurtenances.

No Consideration

DATED and signed this 22 day of Nov., 1976.

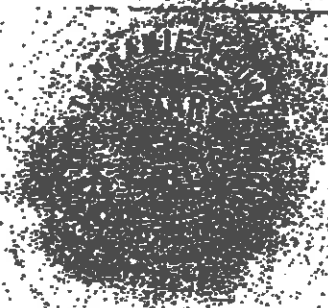
STATE DOCUMENTARY NOV 29 1976 FEE \$...

Ray C. McCune, Grete C. McCune (signatures)

STATE OF COLORADO) COUNTY OF EL PASO) ss.

The foregoing instrument was acknowledged before me this 22 day of Nov., 1976, by Ray C. McCune and Grete C. McCune.

Stephanie J... Notary Public My commission expires: 6/20/78



**COLORADO GROUND WATER COMMISSION
 DIVISION OF WATER RESOURCES
 DEPARTMENT OF NATURAL RESOURCES
 1313 Sherman St, Room 818, Denver, CO 80203**

RECEIVED

**APPLICATION FOR DETERMINATION OF WATER RIGHT
 WITHIN A DESIGNATED GROUND WATER BASIN
 PURSUANT TO SECTION 37-90-107(7), C.R.S.**

APR 17 2008

**WATER RESOURCES
 STATE ENGINEER
 COLO.**

Please note: This application may only be used to apply for a determination of rights to ground water from the Dawson, Denver, Arapahoe or Laramie-Fox Hills aquifer underlying land areas located within a Designated Ground Water Basin. Review the instructions on the reverse of this form. This form must be completed, signed, dated and submitted to the Ground Water Commission with a non-refundable \$60 filing fee. A separate form must be used for each aquifer determination. Type or print in black ink.

1. APPLICANT INFORMATION

Name of Applicant

George F. McCune and Evelyn McCune

Applicant Mailing Address

17480 Meridian Road, Elbert, CO 80106-8916
 c/o Colorado Water Plans, P O Box 1955, Elbert, CO 80106

Applicant Telephone Number (include area code)

~~303-648-9999~~ Contact 303 646-4201 719-495-2562

2. AMOUNT OF OVERLYING LAND - the total and area claimed and described by the applicant in Item #8 below, consisting of **900.52** acres.

3. AQUIFER **Arapahoe NT**

4. EXISTING WELLS - Are there any wells located on the claimed and described overlying land? Yes ___ No X
 If yes, provide a complete list of all wells located on the overlying land area as an attachment to this application.

6. ANNUAL AMOUNT OF GROUND WATER - to be withdrawn, for intended beneficial uses, from the aquifer underlying the described land area claimed by the applicant in Item #8 below. Please specify one of the following:

Maximum allowable annual acre-feet _____ acre-feet annually Maximum allowable annual acre-feet, excluding _____ acre-feet from that amount

6. USE OF GROUND WATER - description of intended beneficial uses of the ground water to be withdrawn from the aquifer
 All water withdrawn will be reused, successively used, leased, sold or otherwise disposed of for the following beneficial uses: domestic, industrial, commercial, irrigation, augmentation, stock watering, recreational water feature ponds and piscatorial habitat less than 1000 square feet and wildlife. The water will be produced for immediate application to said uses, for storage and subsequent application to said uses, for replacement of depletion's from the use of water from other sources and for all other augmentation purposes

7. PLACE OF USE - of the ground water shall be considered to be that overlying land area claimed and described by the applicant in Item #8 below, unless a legal description or accurate scale map is provided which describes an alternate/additional place of use.

8. REQUIRED LANDOWNERSHIP DOCUMENTATION - The Ground Water Commission shall allocate ground water from the Dawson, Denver, Arapahoe or Laramie-Fox Hills aquifer on the basis of ownership of overlying land. For this reason, a Nontributary Ground Water Landownership Statement (form GWS-1) or Nontributary Ground Water Consent Claim (form GWS-48), including a description of the overlying land area subject to this determination, must be submitted as an attachment to the application.

9. SIGNATURE OF APPLICANT - must be original signature - 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.

Signature *George F. McCune & Evelyn M. McCune* Date *April 14, 2008*

- print name and title **George F. McCune and Evelyn McCune, Owners**

FOR OFFICE USE ONLY

DIV 8 CO WD BASIN 2 MD _____

Trans Number: 3628088 B
 4/17/2008 1:34:24 PM
 Geoff Davis (21)
 Total Trans Amt: \$240.00
 CHECK
 Check Number: 9724
 Check Amount: \$240.00

RECEIVED

APR 17 2008

WATER RESOURCES
STATE ENGINEER
COLORADO



COLORADO WATER PLANS

Water Consultants

Colorado Ground Water Commission
Division of Water Resources
Department Of Natural Resources
1313 Sherman Street - Room 818
Denver, Colorado 80203

Re: Application for Determination of Water Right
Client: George F. McCune and Evelyn McCune

Agent: Colorado Water Plans LLC

Colorado Water Plans LLC has prepared the Application for Determination of Water Right with my permission as Signatory and Landowner. Colorado Water Plans LLC shall have full representational power as "Agent" in regards to this Application for Determination of Water Right, water issues, water facts, water calculations, submittals to governmental agencies, reporting forms, newspaper public notifications, applications, or any other needs within the confines of the Contract for Services. This document shall authorize my "Agent" Colorado Water Plans LLC to manage and conduct all affairs and to exercise all my rights and powers within the enclosed Application for Determination of Water Right.

Colorado Water Plans has no rights, implied or warranted outside the affairs of this agreement, and subject to other provisions of this document, disclaim any interest which might otherwise be transferred or distributed to me from other person or entity.

Client:

By: George F. McCune & Evelyn M. McCune

By: _____

Date: 4-14-08

Colorado Water Plans LLC
Craig L. Curl
Dr. W. Jerry Koch
Lisa S. Weinstein, Esq. #35688

By: [Signature]

Date: 4-14-08

P.O. Box 1955 / Elizabeth / Colorado / 80107
Office: 303/646-3895 Fax: 303/646-9655

**DETERMINATION OF WATER RIGHT
SECTION 37-90-107(7)**

APPLICANT: **George F. McCune and Evelyn McCune**

BASIN: **Kiowa-Bijou**

COUNTY: **El Paso**

AQUIFER: **Arapahoe** RECEIPT NO. **3628088B**

NUMBER OF ACRES IN TRACT: **900.52 acres**

GENERAL LOCATION: **SW/4SW/4, Section 18 and W/2NW/4, W/2SW/4, Section 19, T11S, R64W, 6th PM,
S/2SE/4, Section 13 and All of Section 24, T11S, R65W, 6th PM.**

AQUIFER DATA

AMOUNT AVAILABLE FOR APPROPRIATION: **(260 feet SS)(900.52 Acres)(0.17 SY) = 39803 AF 398.0 AFyr**

ADJUSTMENTS: **None**

ANNUAL AMOUNT: **398.0 AFyr**

PRE.NOV.19, 1973 WELLS (COMPLETED IN AQUIFER) IN VICINITY: **N/A**

OVERLAP AREA: **N/A**

AREA CHECKED: **Sections 18, 19, and 30; T11S, R64W
Sections 13, 14, 23, 24, 25, and 26, T11S, R65W**

SMALL-CAPACITY WELLS (COMPLETED IN AQUIFER) LOCATED ON CLAIMED TRACT: **N/A**

REPLACEMENT WATER STATUS OF CLAIMED LAND AREA: **Nontributary**

REPLACEMENT PLAN REQUIRED: **Not Required**

AQUIFER INTERVAL (CENTRAL DATA POINT): **1810 feet to 2310 feet below ground surface**

COMMENTS: **The SS was considered 260 feet based on the SS map for the Arapahoe aquifer.**

Evaluated by: **Justina Mickelson, Ground Water Commission Staff**
Reviewed by **CBG**

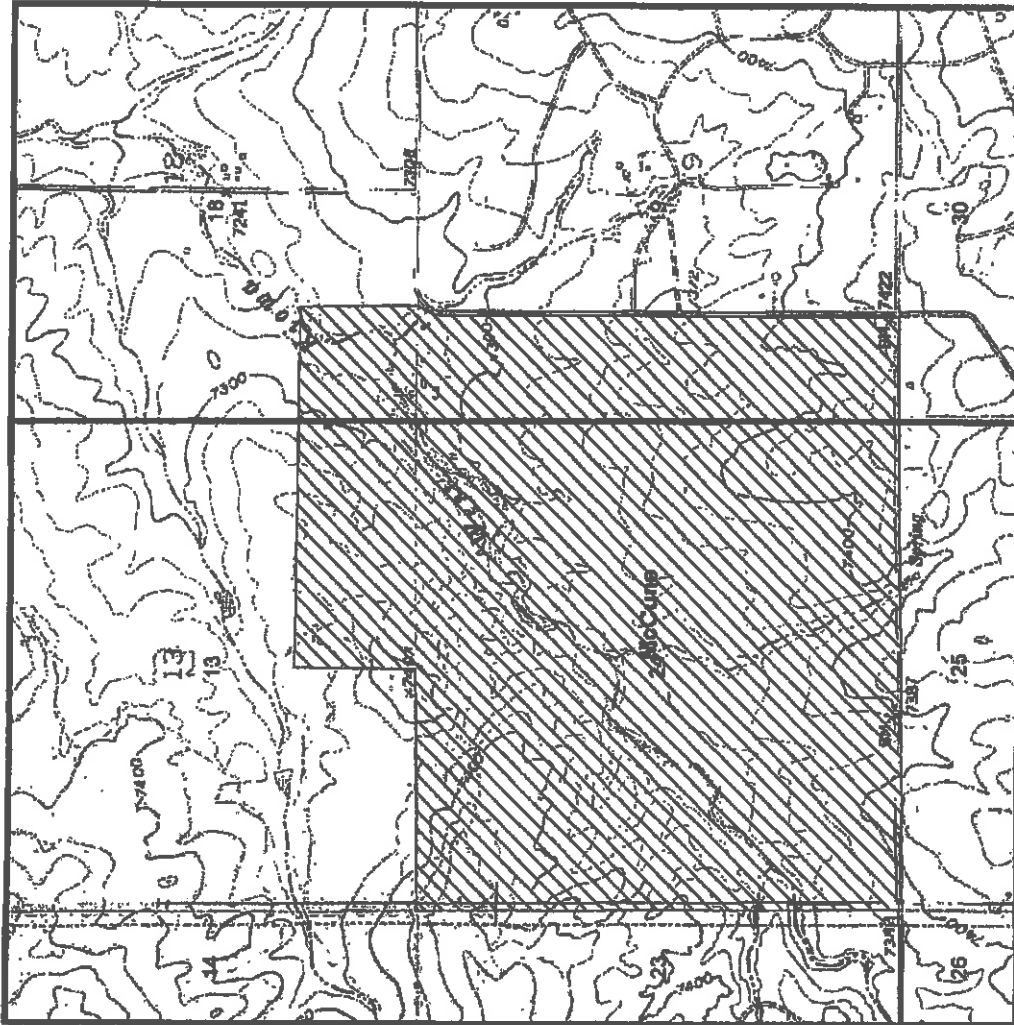
**DIVISION OF WATER RESOURCES
STATE OF COLORADO**

Receipt Number: 3628088B
Applicant: George F. McCune
and Evelyn McCune
Basin: Kiowa-Bijou
GWMID:
Aquifer: Arapahoe
Sections: 13 and 24, T11S, R65W
Sections: 18 and 19, T11S, R64W
Meridian: 6
Area claimed: 900.52 acres
897 acres measured
Perimeter = 7,963 m

Legend
□ Township
- Section
▨ jpm_work



Office of the State Engineer
Division of Water Resources
Department of Natural Resources



**DIVISION OF WATER RESOURCES
STATE OF COLORADO**

Receipt Number: 3628088B
Applicant: George F. McCune
and Evelyn McCune
Basin: Kiowa-Bijou
GWMD:
Aquifer: Arapahoe
Sections: 13 and 24, T11S, R65W
Sections: 18 and 19, T11S, R64W
Meridian: 6

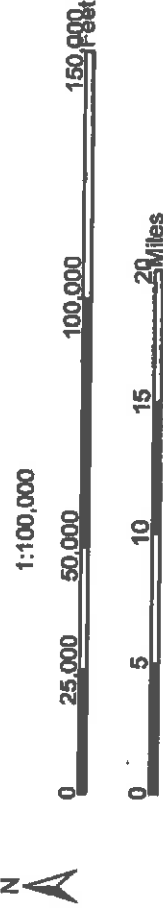
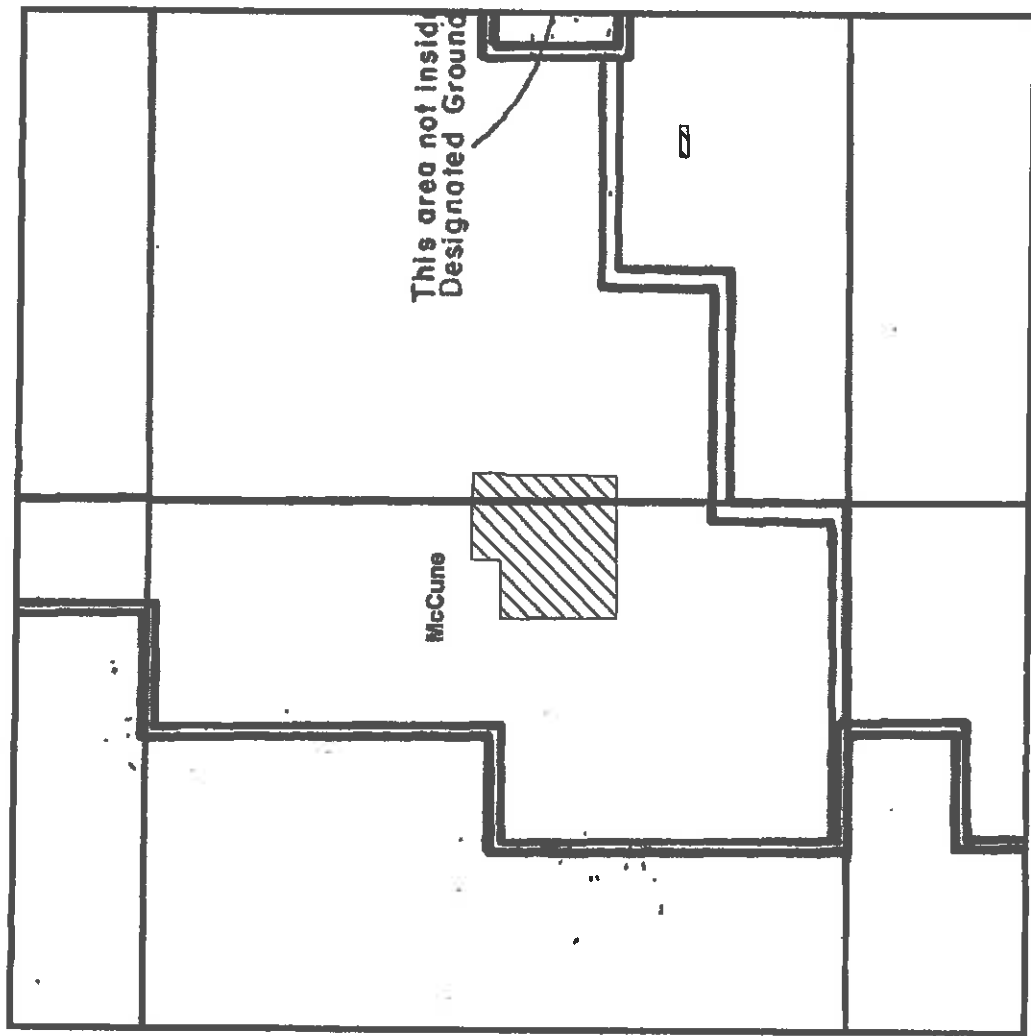
Area claimed: 900.52 acres
897.22 acres measured
Perimeter = 7,963 m

Tributary Status NT

Legend
□ Township
▨ jprm_work



Office of the State Engineer
Division of Water Resources
Department of Natural Resources



**DIVISION OF WATER RESOURCES
STATE OF COLORADO**

Receipt Number: 3628088B
Applicant: George F. McCune
and Evelyn McCune
Basin: Kiowa-Bijou
GWMD:
Aquifer: Arapahoe
Sections: 13 and 24, T11S, R65W
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Meridian: 6

Area claimed: 900.52 acres
897.22 acres measured
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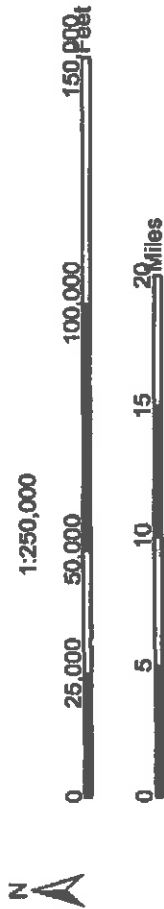
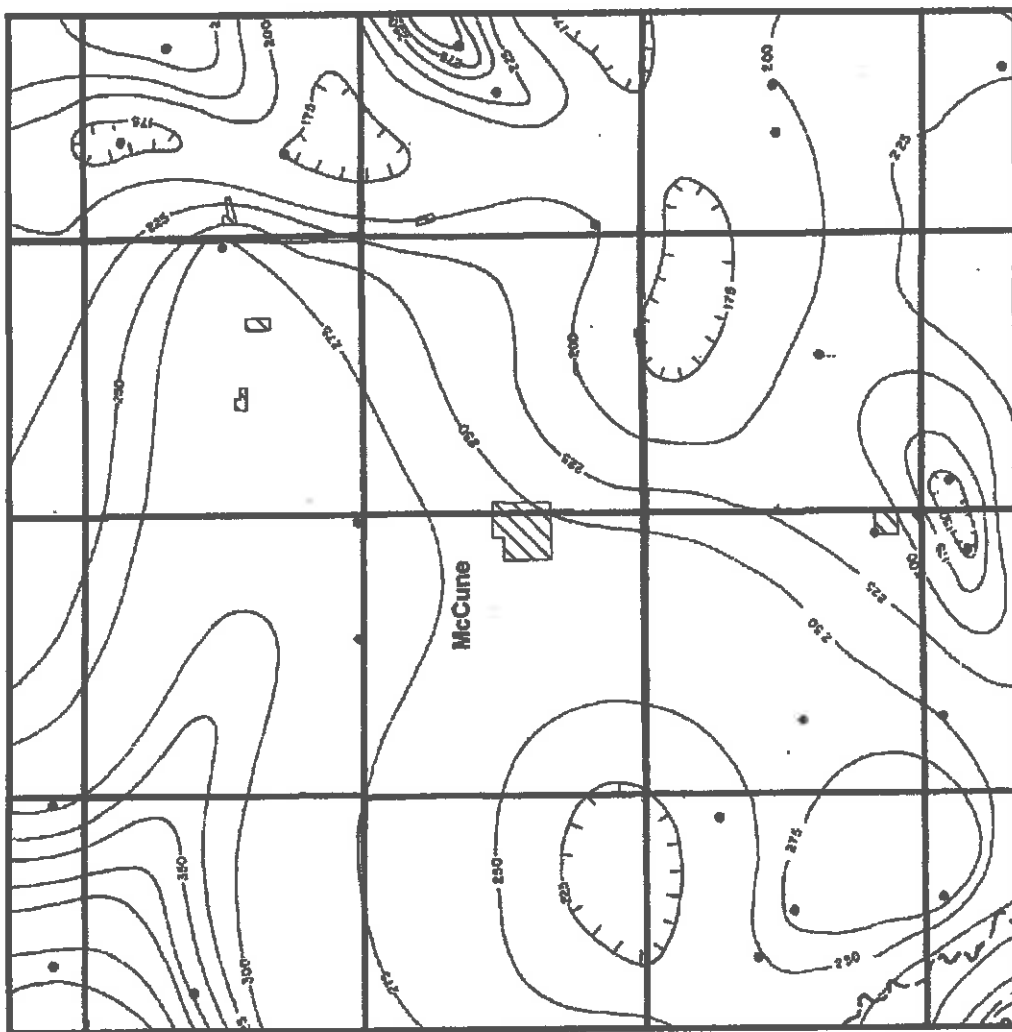
Saturated Sands

Legend

-  Township
-  ipm_work



Office of the State Engineer
Division of Water Resources
Department of Natural Resources



Determinations of Water Right

BEFORE THE COLORADO GROUND WATER COMMISSION

KIOWA-BUJOU DESIGNATED GROUND WATER BASIN- EL PASO COUNTY

TAKE NOTICE that pursuant to Section 37-90-107(7), C.R.S., George F. McCune and Evelyn McCune (hereinafter "applicant") have applied for determinations of water right to allow the withdrawal of designated ground water from the Laramie-Fox Hills, Arapahoe, Denver, and Dawson aquifers underlying 900.52 acres generally described as the SW1/4 of the SW1/4, Section 14, the W1/2 of the NW1/4 and the W1/2 of the SW1/4, Section 19, Township 11 South, Range 64 West of the 6th PM and the S1/2 of the SE1/4, Section 15 and all of Section 24, Township 11 South, Range 65 West of the 6th PM. The applicant claims ownership of this land and control of the ground water in the above-described aquifers under this property. The ground water allocations from these aquifers will be used on the described property for the following beneficial uses: domestic, industrial, commercial, irrigation, augmentation, stock watering; recreational water feature ponds and piscatorial habitat less than 1000 square feet and wildlife, replacement and all other augmentation purposes. The maximum allowable annual amount of ground water in each aquifer underlying the described property will be allocated.

In accordance with Section 37-90-107(7), C.R.S., and the Designated Basin Rules; 2 CCR 410-1, the Colorado Ground Water Commission shall allocate ground water from the above-described aquifers based on ownership of the overlying land and an aquifer life of one hundred years. A preliminary evaluation of the applications by the Commission Staff finds the annual amount of water available for allocation from each of the described aquifers underlying the above-described property to be as follows: 263.4 acre-feet for the Laramie-Fox Hills, 398.0 acre-feet for the Arapahoe, 528.2 acre-feet for the Denver, and 819.5 for the Dawson subject to final staff evaluation. The estimated available annual acre-feet allocation amount for each aquifer indicated above may be increased or decreased by the Commission to conform to the actual aquifer characteristics, based upon site specific data.

In accordance with Rule 5.3.6 of the Designated Basin Rules, the Commission Staff's preliminary evaluation of the applications finds the replacement water requirement status for the above aquifers underlying the above-described property to be as follows: noncontributory for the Laramie-Fox Hills, noncontributory for the Arapahoe, noncontributory for the Denver, and noncontributory (actual impact replacement) for the Dawson.

Upon Commission approval of these determinations of water right, well permits for wells to withdraw the allowed allocation from a specific aquifer shall be available upon application, subject to the conditions of the determination and the Designated Basin Rules and subject to approval by the Commission. Such wells must be completed in the specified aquifer and located on the above described 900.52 acre property. Well permits for wells to withdraw ground water from the Dawson aquifer would also be subject to the conditions of a replacement plan to be approved by the Commission.

Any person wishing to object to the approval of these determinations of water right must do so in writing, briefly stating the nature of the objection and indicating the above applicant, property description and the specific aquifers that are the subject of the objection. The objection must be accompanied by a \$10 per aquifer fee and must be received by the Commission Staff, Colorado Ground Water Commission, 818 Centennial Building, 1313 Sherman Street, Denver, Colorado 80203, by June 16, 2008.

First Publication May 8, 2008
Final Publication May 15, 2008
in Ranchland News
Legal No. 12,936

PUBLISHER'S AFFIDAVIT

STATE OF COLORADO)
) ss.
COUNTY OF ELBERT)

I, Susan Lister, do solemnly affirm that I am the Publisher of RANGLAND NEWS; that the same is a weekly newspaper published at Simla, County of Elbert, State of Colorado, and has a general circulation therein; that said newspaper has been continuously and uninterruptedly published in said County of Elbert for a period of at least 52 consecutive weeks next prior to the first publication of the annexed notice, that said newspaper is entered in the post office at Calhan, Colorado as second class mail matter and that said newspaper is a newspaper within the meaning of the Act of the General Assembly of the State of Colorado, approved March 30, 1923, and entitled "Legal Notices and Advertisements," with other Acts relating to the printing and publishing of legal notices and advertisements. That the annexed notice was published in the regular and entire issue of said newspaper, once each week for two consecutive weeks; that the first publication of said notice was in the issue of said newspaper dated:

May 8, 2008

and the last publication of said notice was in the issue of said newspaper dated:

May 15, 2008

and that copies of each number of said paper which said notice and/or list was published are delivered by carriers or transmitted by mail to each of the subscribers of said newspaper, Ranchland News, according to the customary mode of business in this office.

Susan Lister
Publisher

The above certificate of publication was subscribed and affirmed to before me, a Notary Public, to be the identical person described in the above certificate, on the

15 day of May, 2008

Jill Kistner
Notary Public

1/22/12
(My Notary Public Commission Expiration Date)

RECEIVED

MAY 19 2008

WATER RESOURCES
DIVISION



DEPARTMENT OF NATURAL RESOURCES

DIVISION OF WATER RESOURCES

June 27, 2008

Bill Ritter, Jr.
Governor

Harris D. Sherman
Executive Director

Dick Wolfe, P.E.
Director

George F. and Evelyn McCune
17480 Meridian Road
Elbert, CO 80106-8916

RE: Determination of Water Right

Dear Mr. and Mrs. McCune:

Enclosed is a copy of the Colorado Ground Water Commission's Findings and Order for Determination of Water Right No. 1690-BD, for the allocation of ground water in the Arapahoe aquifer. This Findings and Order is the Commission's approval of your application for determination of right to ground water in the above stated aquifer. This document contains important information about your water right and should be reviewed and retained for your records.

As indicated in the Order, a copy of this determination must be recorded by the applicant in the public records of the county – in which the overlying land is located – so that a title examination of the overlying land claimed in the application, or any part thereof, shall reveal this determination. An additional copy of the Findings and Order is enclosed for this purpose.

If you have any questions, please contact this office.

Sincerely,

Justina P. Mickelson
Physical Science Researcher Scientist
Designated Basins Branch

Enclosures: a/s

Office of the State Engineer

1313 Sherman Street, Suite 818 • Denver, CO 80203 • Phone: 303-866-3581 • Fax: 303-866-3589

www.water.state.co.us

Colorado Division of Water Resources

Colorado's Well Permit Search

THIS PAGE IS NOT THE ACTUAL PERMIT

The information contained on this page is a summary of the permit file and may not reflect all details of the well permit. ([Full Disclaimer](#))

Permit Issued: Completion Status Unknown

Last Refresh: 12/6/2016 12:03:01 AM

Receipt: 3628088C **Division:** 1
Permit #: 1691-BD - **Water District:** 1
Well Name / #: **County:** EL PASO
Designated Basin: KOWA-BIYOU **Management District:**
Case Number:
WDID:

[-] Imaged Documents - Permit File

Document Name	Date Imaged	Annotated
Findings & Order for Determination	05/21/2009	No

[-] Applicant/Contact

Applicant/Contact Name	Mailing Address	City/State/Zip
MCCUNE GEORGE F & EVELYN	17480 MERIDIAN RD	ELBERT, CO 80106-8916

[-] Location Information

Approved Well Location:

Q40	Q160	Section	Township	Range	PM	Footage from Section Lines
		24	11.0S	65.0W	Sixth	

Northing (UTM y): 4325550.5 **Easting (UTM x):** 533176.3
Location Accuracy: Spotted from quarters

Subdivision Name

Filing Block Lot

Parcel ID: Acres in Tract: 900.52

[-] Permit Details

Date Issued: 06/25/2008 **Date Expires:**
Uses (See [Imaged Documents](#) for more information)
General Use(s): COMMERCIAL **Aquifer(s):** DENVER
 DOMESTIC
Special Use:
Area which may be irrigated:
Annual volume of appropriation:
Statute:
Cross Reference Permit(s): Permit Number Receipt
Comments: DETER ISSUED

[-] Construction/Usage Details

Well Construction Date: **Pump Installation Date:**
Well Plugged: **1st Beneficial Use:**
Elevation **Depth** **Perforated Casing (Top)** **Perforated Casing (Bottom)** **Static Water Level** **Pump Rate**

[-] Application/Permit History

Permit Issued	06/25/2008
Application Received	04/17/2008

Disclaimer

***The information contained on this page is a summary of the permit file and may not reflect all details of the well permit. THIS PAGE IS NOT THE ACTUAL PERMIT.**

This page should not be used as a basis for any legal consideration, to determine the allowed uses of the well, to determine construction information, or to determine the terms and conditions under which the well can operate. The complete well permit file should be viewed to obtain details on the allowed uses and other relevant information. A complete copy of this file is available in the "Imaged Documents" section of this page, and can be viewed by opening all of the documents listed under that section (documents will open as pdf files).

Note that all of the terms and conditions under which a well can operate, particularly for non-exempt wells, may not be specified on the well permit. Wells may also be subject to relevant statutes, rules and decrees. To learn

more about well permitting in Colorado, please visit [DWR's Well Permitting Page](#). If you have any questions about this well permit file, please contact the [DWR Ground Water Information Desk](#).

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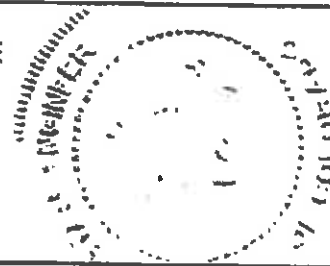
**COLORADO GROUND WATER COMMISSION
FINDINGS AND ORDER**

IN THE MATTER OF AN APPLICATION FOR DETERMINATION OF WATER RIGHT TO ALLOW THE WITHDRAWAL OF GROUND WATER IN THE KIOWA-BIJOU DESIGNATED GROUND WATER BASIN

APPLICANT: GEORGE F. MCCUNE AND EVELYN MCCUNE

AQUIFER: DENVER

DETERMINATION NO.: 1691-BD



In compliance with Section 37-90-107(7), C.R.S., and the Designated Basin Rules, 2 CCR 410-1, George F. McCune and Evelyn McCune (hereinafter "applicant") submitted an application for determination of water right to allow the withdrawal of designated ground water from the Denver Aquifer.

FINDINGS

1. The application was received complete by the Colorado Ground Water Commission on April 17, 2008.
2. The applicant requests a determination of rights to designated ground water in the Denver Aquifer (hereinafter "aquifer") underlying 900.52 acres, generally described as the SW1/4 of the SW1/4, Section 18, the W1/2 of the NW1/4 and the W1/2 of the SW1/4, Section 19, Township 11 South, Range 64 West of the 6th PM and the S1/2 of the SE1/4, Section 13 and all of Section 24, Township 11 South, Range 65 West of the 6th Principal Meridian, in El Paso County. According to a signed statement dated April 17, 2008, the applicant owns the 900.52 acres of land, as further described in said affidavit which is attached hereto as Exhibit A, and claims control of the ground water in the aquifer underlying this land area.
3. The proposed annual amount of ground water to be allocated and withdrawn from the aquifer for intended beneficial uses is the maximum allowable amount.
4. The above described land area overlying the ground water claimed by the applicant is located within the boundaries of the Kiowa-Bijou Designated Ground Water Basin. The Colorado Ground Water Commission (hereinafter "Commission") has jurisdiction.
5. The applicant intends to apply the allocated ground water to the following beneficial uses: domestic, industrial, commercial, irrigation, augmentation, stock watering, recreational water feature ponds and piscatorial habitat less than 1000 square feet and wildlife, replacement and all other augmentation purposes. The applicant's proposed place of use of the allocated ground water is the above described 900.52 acre land area.
6. The quantity of water in the aquifer underlying the 900.52 acres of land claimed by the applicant is 52800 acre-feet. This determination was based on the following as specified in the Designated Basin Rules:

- a. The average specific yield of the saturated permeable material of the aquifer underlying the land under consideration that could yield a sufficient quantity of water that may be extracted and applied to beneficial use is 17 percent.
- b. The average thickness of the saturated permeable material of the aquifer underlying the land under consideration that could yield a sufficient quantity of water that may be extracted and applied to beneficial use is 345 feet.
7. At this time, there is no substantial artificial recharge that would affect the aquifer within a one hundred year period.
8. Pursuant to Section 37-90-107(7), C.R.S., and in accordance with the Designated Basin Rules, the Commission shall allocate ground water in the aquifer based on ownership of the overlying land and an aquifer life of one hundred years. Therefore, the maximum allowed average annual amount of ground water in the aquifer that may be allocated for withdrawal pursuant to the data in the paragraphs above for the 900.52 acres of overlying land claimed by the applicant is 528 acre-feet.
9. A review of the records in the Office of the State Engineer has disclosed that none of the water in the aquifer underlying the land claimed by the applicant has been previously allocated or permitted for withdrawal.
10. Pursuant to Section 37-90-107(7)(c)(III), C.R.S., an approved determination of water right shall be considered a final determination of the amount of ground water so determined; except that the Commission shall retain jurisdiction for subsequent adjustment of such amount to conform to the actual local aquifer characteristics from adequate information obtained from well drilling or test holes.
11. The ability of wells permitted to withdraw the authorized amount of water from this non-renewable aquifer may be less than the one hundred years upon which the amount of water in the aquifer is allocated, due to anticipated water level declines.
12. In accordance with Rule 5.3.6 of the Designated Basin Rules, it has been determined that withdrawal of ground water from the aquifer underlying the land claimed by the applicant will not, within one hundred years, deplete the flow of a natural stream or its alluvial aquifer at an annual rate greater than one-tenth of one percent of the annual rate of withdrawal and, therefore, the ground water is nontributary ground water as defined in Rule 4.2.19 of the Designated Basin Rules. No more than 98% of the amount of ground water withdrawn annually shall be consumed, as required by the Designated Basin Rules.
13. In accordance with Section 37-90-107(7), C.R.S., upon Commission approval of a determination of water right, well permits for wells to withdraw the authorized amount of water from the aquifer shall be available upon application, subject to the conditions of this determination and the Designated Basin Rules and subject to approval by the Commission.
14. The Commission Staff has evaluated the application relying on the claims to control of the ground water in the aquifer made by the applicant.

15. In accordance with Sections 37-90-107(7) and 37-90-112, C.R.S., the application was published in the Ranchland News newspaper on May 8 and May 15, 2008.
16. No objections to the determination of water right and proposed allocation of ground water were received within the time limit set by statute.
17. In order to prevent unreasonable impairment to the existing water rights of others within the Kiowa-Bijou Designated Ground Water Basin it is necessary to impose conditions on the determination of water right and proposed allocation of ground water. Under conditions as stated in the following Order, no unreasonable impairment of existing water rights will occur from approval of this determination of water right or from the issuance of well permits for wells to withdraw the authorized amount of allocated ground water from the aquifer.

ORDER

In accordance with Section 37-90-107(7), C.R.S., and the Designated Basin Rules, the Colorado Ground Water Commission orders that the application for determination of rights to designated ground water in the Denver Aquifer underlying 900.52 acres of land, generally described as the SW1/4 of the SW1/4, Section 18, the W1/2 of the NW1/4 and the W1/2 of the SW1/4, Section 19, Township 11 South, Range 64 West of the 6th PM and the S1/2 of the SE1/4, Section 13 and all of Section 24, Township 11 South, Range 65 West of the 6th Principal Meridian, is approved subject to the following conditions:

18. The allowed average annual amount of withdrawal of ground water from the aquifer shall not exceed 528 acre-feet. The allowed maximum annual amount of withdrawal may exceed the allowed average annual amount of withdrawal as long as the total volume of water withdrawn does not exceed the product of the number of years since the date of approval of this determination times the allowed average annual amount of withdrawal.
19. To conform to actual aquifer characteristics, the Commission may adjust the allowed average annual amount of ground water to be withdrawn from the aquifer based on analysis of geophysical logs or other site-specific data if such analysis indicates that the initial estimate of the volume of water in the aquifer was incorrect.
20. The applicant may pump the allowed average annual amount of withdrawal and the allowed maximum annual amount of withdrawal from one or more wells of a well field in any combination, so long as the total combined withdrawal of the wells does not exceed the amounts described in this Order.
21. No more than 98% of the ground water withdrawn annually shall be consumed. The Commission may require well owners to demonstrate periodically that no more than 98% of the water withdrawn is being consumed.
22. The use of ground water from this allocation shall be limited to the following beneficial uses: domestic, industrial, commercial, irrigation, augmentation, stock watering, recreational water feature ponds and piscatorial habitat less than 1000 square feet and wildlife, replacement and all other augmentation purposes. The place of use shall be limited to the above described 900.52 acre land area.

23. The applicant, or subsequent persons controlling this water right, shall record in the public records of the county - in which the claimed overlying land is located - notice of transfer of any portion of this water right to another within sixty days after the transfer, so that a title examination of the above described 900.52 acre land area, or any part thereof, shall reveal the changes affecting this water right. Such notice shall consist of a signed and dated deed which indicates the determination number, the aquifer, a description of the above described land area, the annual amount of ground water (acre-feet) transferred, name of the recipient, and the date of transfer.
24. Subject to the above conditions, well permits for wells to withdraw the allocated annual amount of water from the aquifer shall be available upon application subject to approval by the Commission and the following conditions:
 - a. The wells shall be located on the above described 900.52 acre overlying land area.
 - b. The wells must be constructed to withdraw water from only the Denver Aquifer. Upon application for a well permit to construct such a well, the estimated top and base of the aquifer at the proposed well location will be determined by the Commission and indicated on the approved well permit. Plain non-perforated casing must be installed, grouted and sealed to prevent diversion of ground water from other aquifers and the movement of ground water between aquifers.
 - c. The entire depth of each well must be geophysically logged prior to installing the casing as set forth in Rule 9 of the Statewide Nontributary Ground Water Rules, 2 CCR 402-7.
 - d. Each well shall be constructed within 200 feet of the location specified on the approved well permit, but must be more than 600 feet from any existing large-capacity well completed in the same aquifer.
 - e. A totalizing flow meter or other Commission approved measuring device shall be installed on each well and maintained in good working order by the well owner. Annual diversion records shall be collected and maintained by the well owner and submitted to the Commission upon their request.
 - f. The well owner shall mark the well in a conspicuous place with the permit number and the name of the aquifer. The well owner shall take necessary means and precautions to preserve these markings.
25. A copy of this Findings and Order shall be recorded by the applicant in the public records of the county in which the claimed overlying land is located so that a title examination of the above described 900.52 acre overlying land area, or any part thereof, shall reveal the existence of this determination.

Applicant: George F. McCune and Evelyn McCune
Aquifer: Denver
Determination No.: 1691-BD

Page 5

Dated this 25th day of June, 2008.

Dick Wolfe

Dick Wolfe, P.E.
Executive Director
Colorado Ground Water Commission

By:

Keith Vander Horst

Keith Vander Horst, P.E.
Water Resource Engineer

Prepared by: JPM

92GWS 1
03/2005

EXHIBIT A

1691-BD

Page 1 of 2

STATE OF COLORADO
OFFICE OF THE STATE ENGINEER
DIVISION OF WATER RESOURCES
1313 Sherman St. Room 821
Denver, CO 80203
(303) 866-3581 Fax (303) 866-3589

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APR 17 2008

WATER RESOURCES
STATE ENGINEER
COLO.

NONTRIBUTARY GROUND WATER LANDOWNERSHIP STATEMENT

I (We) George F. McCune and Evelyn McCune

(Name(s))

claim and say that I (we) am (are) the owner(s) of the following described property consisting of 900.52 acres in the County of El Paso State of Colorado:

(Insert the property legal description)

SW/4SW/4 Section 18 and W/2 of the W/2 Section 19, T11S, R64W, and S/2SE/4 Section 13 and All of Section 24, T11S R65W, 6th PM, El Paso County, 900.52 acres

See attached Quitclaim Deed dated November 29, 1976, and map.

and, that the ground water sought to be withdrawn from the Denver aquifer underlying the above-described land has not been conveyed or reserved to another, nor has consent been given to its withdrawal by another.

Further, I (we) claim and say that I (we) have read the statements made herein; know the contents hereof; and that the same are true to my (our) knowledge.

Signature

George F. McCune

Date

Signature

Evelyn M. McCune

Date

.....
INSTRUCTIONS:

Please type or print neatly in black or blue ink. This form may be reproduced by photocopy or word processing means. See additional information on the reverse side.

County of El Paso State of Colorado RECEIVED AT 9/27/76 NOV 29 1976

NOV 27 1976

RECEIVED FOR 280197 MARKET VALUE

QUITCLAIM DEED Best Copy Available RECEIVED

APR 17 2008

WATER RESOURCES STATE ENGINEER COLO.

RECORDS

RAY C. McCUNE and GRETA C. McCUNE, as husband and wife, of the County of El Paso and State of Colorado, for the consideration of One Dollar (\$1.00) and other good and valuable consideration, in hand paid, hereby sell and quit claim to GEORGE F. McCUNE and EVELYN M. McCUNE, husband and wife, in joint tenancy, of the County of Elbert and State of Colorado, a one-half interest in and to all minerals underlying the following described property, including oil and gas, and property lying and being in the County of El Paso and State of Colorado, to wit:

The Southwest quarter of the Southwest quarter of Section Eighteen, Township Eleven, Range Sixty-four; the West half of the West half of Section Nineteen, Township Eleven, Range Sixty-four; the South half of the Southeast Quarter of Section Thirteen, Township Eleven, Range Sixty-five; All of Section Twenty-four, Township Eleven, Range Sixty-five, containing in all Nine hundred and fifty-two hundredths (900.52) acres, more or less, according to Government Survey,

with all its appurtenances.

No Consideration

DATED and signed this 22 day of Nov., 1976.

STATE DOCUMENTARY NOV 29 1976 FEE \$ Done

Roy C. McCune Roy C. McCune

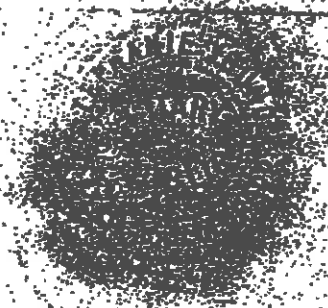
Greta C. McCune Greta C. McCune

STATE OF COLORADO) COUNTY OF EL PASO) ss.

The foregoing instrument was acknowledged before me this 22 day of Nov., 1976, by Roy C. McCune and Greta C. McCune.

Stephanie J. J... Notary Public

My commission expires 6/20/78



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APR 17 2008

WATER RESOURCES
 STATE ENGINEER
 COLO.

**APPLICATION FOR DETERMINATION OF WATER RIGHT
 WITHIN A DESIGNATED GROUND WATER BASIN
 PURSUANT TO SECTION 37-90-107(7), C.R.S.**

Please note: This application may only be used to apply for a determination of rights to ground water from the Dawson, Denver, Arapahoe or Laramie-Fox Hills aquifer underlying land areas located within a Designated Ground Water Basin. Review the instructions on the reverse of this form. This form must be completed, signed, dated and submitted to the Ground Water Commission with a non-refundable \$60 filing fee. A separate form must be used for each aquifer determination. Type or print in black ink.

1. APPLICANT INFORMATION	
Name of Applicant George F. McCune and Evelyn McCune	
Applicant Mailing Address 17480 Meridian Road, Elbert, CO 80106-8916 c/o Colorado Water Plans, P O Box 1956, Elbert, CO 80106	
Applicant Telephone Number (include area code) 303-648-9999 Contact 303 646-4201 719-495-2562	
2. AMOUNT OF OVERLYING LAND - the total and area claimed and described by the applicant in Item #8 below, consisting of 900.52 acres.	3. AQUIFER Denver NT
4. EXISTING WELLS - Are there any wells located on the claimed and described overlying land? Yes ___ No <u>X</u> If yes, provide a complete list of all wells located on the overlying land area as an attachment to this application.	
5. ANNUAL AMOUNT OF GROUND WATER - to be withdrawn, for intended beneficial uses, from the aquifer underlying the described land area claimed by the applicant in Item #8 below. Please specify one of the following: <input checked="" type="checkbox"/> Maximum allowable annual acre-feet <input type="checkbox"/> _____ acre-feet annually <input type="checkbox"/> Maximum allowable annual acre-feet, excluding _____ acre-feet from that amount	
6. USE OF GROUND WATER - description of intended beneficial uses of the ground water to be withdrawn from the aquifer All water withdrawn will be reused, successively used, leased, sold or otherwise disposed of for the following beneficial uses: domestic, industrial, commercial, irrigation, augmentation, stock watering, recreational water feature ponds and piscatorial habitat less than 1000 square feet and wildlife. The water will be produced for immediate application to said uses, for storage and subsequent application to said uses, for replacement of depletion's from the use of water from other sources and for all other augmentation purposes	
7. PLACE OF USE - of the ground water shall be considered to be that overlying land area claimed and described by the applicant in item #8 below, unless a legal description or accurate scale map is provided which describes an alternate/additional place of use.	
8. REQUIRED LANDOWNERSHIP DOCUMENTATION - The Ground Water Commission shall allocate ground water from the Dawson, Denver, Arapahoe or Laramie-Fox Hills aquifer on the basis of ownership of overlying land. For this reason, a Nontributary Ground Water Landownership Statement (form GWS-1) or Nontributary Ground Water Consent Claim (form GWS-48), including a description of the overlying land area subject to this determination, must be submitted as an attachment to the application.	
9. SIGNATURE OF APPLICANT - must be original signature - 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.	
Signature <i>George F. McCune</i>	Date
- print name and title George F. McCune and Evelyn McCune, Owners	

Trans Number: 3028088
 4/17/2008 1:34:24 PM
 Geoff Davis (21)
 Total Trans Amt: \$240.00
 CHECK
 Check Number: 8724
 Circle Amount: \$240.00

FOR OFFICE USE ONLY

DIV 8 CO WD 1 BASIN 2 MD

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APR 17 2008

WATER RESOURCES
STATE ENGINEER
COLORADO



COLORADO WATER PLANS

Water Consultants

Colorado Ground Water Commission
Division of Water Resources
Department Of Natural Resources
1313 Sherman Street - Room 818
Denver, Colorado 80203

Re: Application for Determination of Water Right
Client: George F. McCune and Evelyn McCune

Agent: Colorado Water Plans LLC

Colorado Water Plans LLC has prepared the Application for Determination of Water Right with my permission as Signatory and Landowner. Colorado Water Plans LLC shall have full representational power as "Agent" in regards to this Application for Determination of Water Right, water issues, water facts, water calculations, submittals to governmental agencies, reporting forms, newspaper public notifications, applications, or any other needs within the confines of the Contract for Services. This document shall authorize my "Agent" Colorado Water Plans LLC to manage and conduct all affairs and to exercise all my rights and powers within the enclosed Application for Determination of Water Right.

Colorado Water Plans has no rights, implied or warranted outside the affairs of this agreement, and subject to other provisions of this document, disclaim any interest which might otherwise be transferred or distributed to me from other person or entity.

Client:

By: George F. McCune & Evelyn M. McCune

By: _____

Date: 4-14-08

Colorado Water Plans LLC
Craig L. Curl
Dr. W. Jerry Koch
Lisa S. Weinstein, Esq. #35688

By: [Signature]

Date: 4-14-08

P.O. Box 1955 / Elizabeth / Colorado / 80107
Office: 303/646-3895 Fax: 303/646-9655

**DETERMINATION OF WATER RIGHT
SECTION 37-90-107(7)**

APPLICANT: George F. McCune and Evelyn McCune

BASIN: Kiowa-Bijou

COUNTY: El Paso

AQUIFER: Denver **RECEIPT NO.** 3628088C

NUMBER OF ACRES IN TRACT: 900.52 acres

GENERAL LOCATION: SW/4SW/4, Section 18 and W/2NW/4, W/2SW/4, Section 19, T11S, R64W, 6th PM,
S/2SE/4, Section 13 and All of Section 24, T11S, R65W, 6th PM.

AQUIFER DATA

AMOUNT AVAILABLE FOR APPROPRIATION: (345 feet SS)(900.52 Acres)(0.17 SY) = 52816 AF 528.2 AFyr

ADJUSTMENTS: None

ANNUAL AMOUNT: 528.2 AFyr

PRE.NOV.19, 1973 WELLS (COMPLETED IN AQUIFER) IN VICINITY: N/A

OVERLAP AREA: N/A

AREA CHECKED: Sections 18, 19, and 30, T11S, R64W
Sections 13, 14, 23, 24, 25, and 26, T11S, R65W

SMALL-CAPACITY WELLS (COMPLETED IN AQUIFER) LOCATED ON CLAIMED TRACT: N/A

REPLACEMENT WATER STATUS OF CLAIMED LAND AREA: Nontributary

REPLACEMENT PLAN REQUIRED: Not Required

AQUIFER INTERVAL (CENTRAL DATA POINT): 970 feet to 1770 feet below ground surface

COMMENTS: The SS was considered 345 feet based on the SS map for the Denver aquifer.

Evaluated by: Justina Mickelson, Ground Water Commission Staff
Reviewed by: CBG

**DIVISION OF WATER RESOURCES
STATE OF COLORADO**

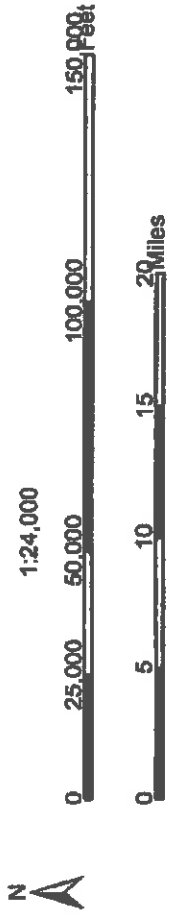
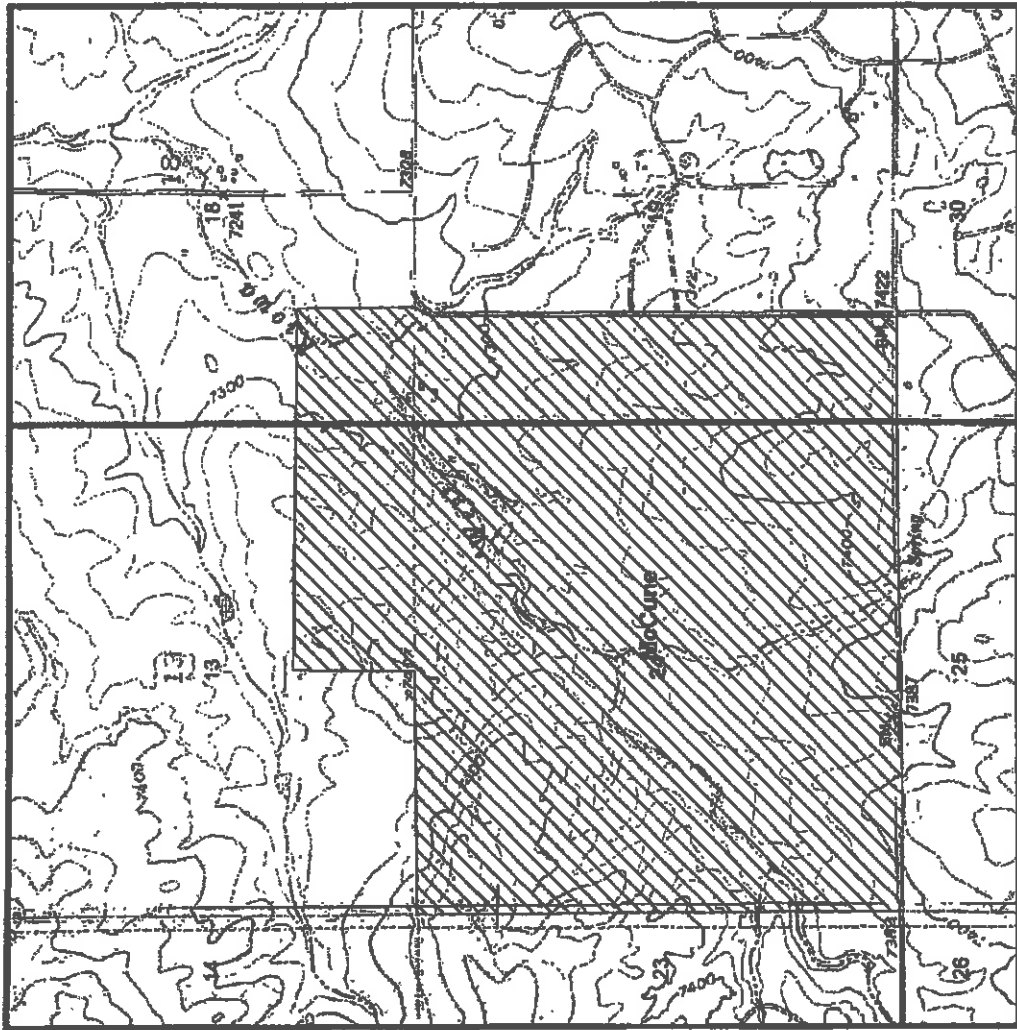
Receipt Number: 3628088C
Applicant: George F. McCune
and Evelyn McCune
Basin: Kiowa-Bijou
GWMD: Denver
Sections: 13 and 24, T11S, R65W
Sections: 18 and 19, T11S, R64W
Meridian: 6

Area claimed: 900.52 acres
897 acres measured
Perimeter = 7,963 m

- Legend**
-  Township
 -  Section
 -  jpm_work



Office of the State Engineer
Division of Water Resources
Department of Natural Resources



**DIVISION OF WATER RESOURCES
STATE OF COLORADO**

Receipt Number: 3628088C
Applicant: George F. McCune
and Evelyn McCune
Basin: Kiowa-Bijou
GWMD: Denver

Sections: 13 and 24, T11S, R65W
Sections: 18 and 19, T11S, R64W
Meridian: 6

Area claimed: 900.52 acres
897.22 acres measured
Perimeter = 7,963 m

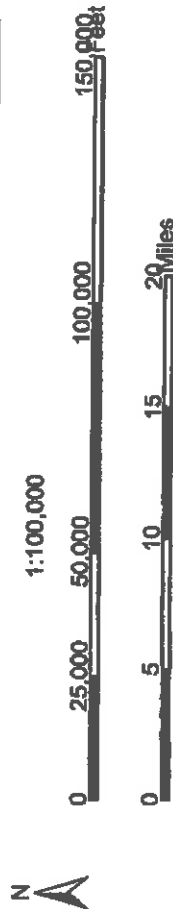
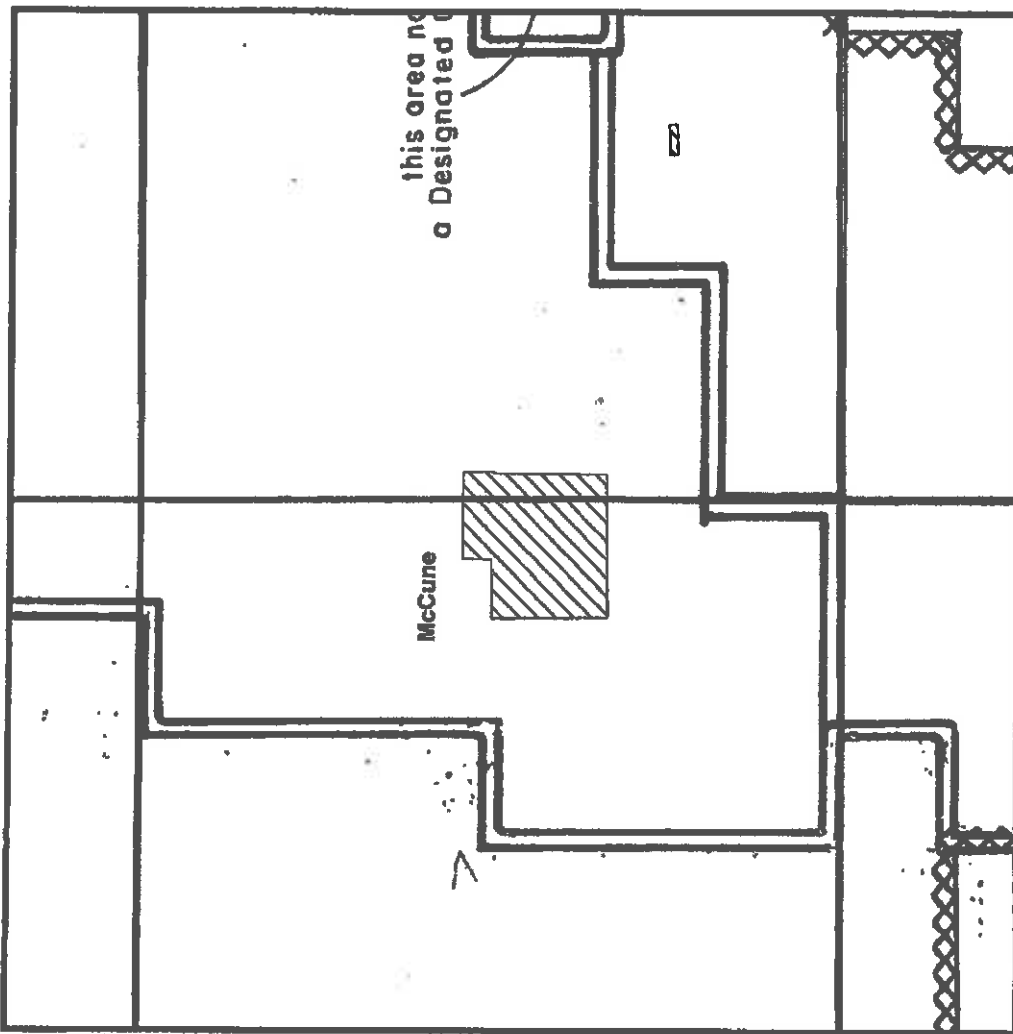
Tributary Status NT

Legend

- Township
- jpm_work



Office of the State Engineer
Division of Water Resources
Department of Natural Resources




**DIVISION OF WATER RESOURCES
STATE OF COLORADO**

Receipt Number: 3628088C
 Applicant: George F. McCune
 and Evelyn McCune
 Basin: Kiowa-Bijou
 GWMD: Denver
 Sections: 13 and 24, T11S, R65W
 Sections: 18 and 19, T11S, R64W
 Meridian: 6
 Area claimed: 900.52 acres
 897.22 acres measured
 Perimeter = 7,963 m

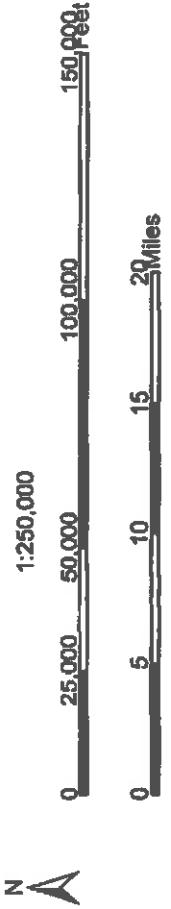
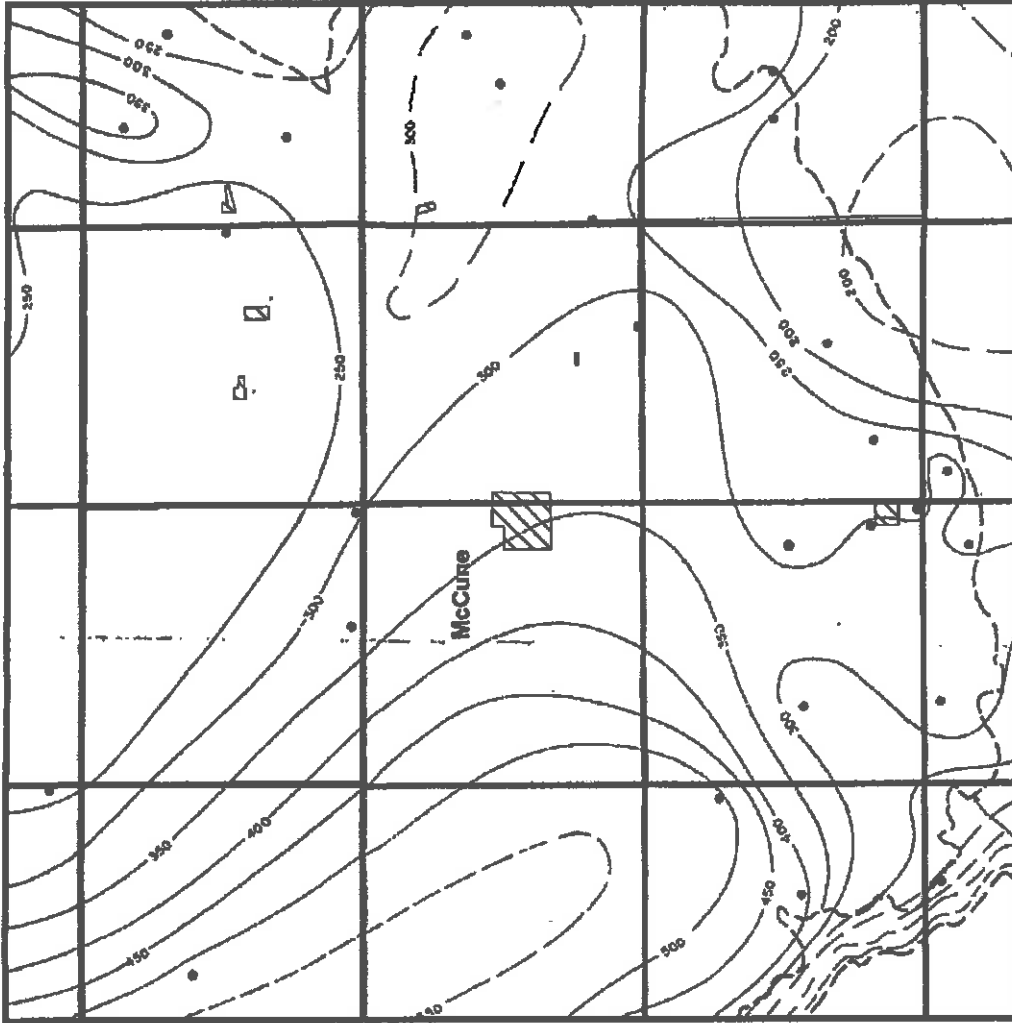
Saturated Sands

Legend

-  Township
-  ipm_work



Office of the State Engineer
 Division of Water Resources
 Department of Natural Resources



PUBLISHER'S AFFIDAVIT

STATE OF COLORADO)
) ss.
COUNTY OF ELBERT)

I, Susan Lister, do solemnly affirm that I am the Publisher of RANGLAND NEWS; that the same is a weekly newspaper published at Simla, County of Elbert, State of Colorado, and has a general circulation therein; that said newspaper has been continuously and uninterruptedly published in said County of Elbert for a period of at least 52 consecutive weeks next prior to the first publication of the annexed notice, that said newspaper is entered in the post office at Calhan, Colorado as second class mail matter and that said newspaper is a newspaper within the meaning of the Act of the General Assembly of the State of Colorado, approved March 30, 1923, and entitled "Legal Notices and Advertisements," with other Acts relating to the printing and publishing of legal notices and advertisements. That the annexed notice was published in the regular and entire issue of said newspaper, once each week for two consecutive weeks; that the first publication of said notice was in the issue of said newspaper dated:

May 8, 2008

and the last publication of said notice was in the issue of said newspaper dated:

May 15, 2008

and that copies of each number of said paper which said notice and/or list was published are delivered by carriers or transmitted by air to each of the subscribers of said newspaper, Ranchland News, according to the customary mode of business in this office.

Susan Lister
Publisher

The above certificate of publication was subscribed and affirmed to before me, a Notary Public, to be the identical person described in the above certificate, on the

15 day of May, 2008
Julie Lister
Notary Public

1/22/12
Notary Public Commission Expiration Date)

Determinations of Water Right

BEFORE THE COLORADO GROUND WATER COMMISSION

KJOWA-BLFOU DESIGNATED GROUND WATER BASIN - EL PASO COUNTY

TAKE NOTICE that pursuant to Section 37-90-107(7), C.R.S., George F. McCune and Evelyn McCune (hereinafter "applicant") have applied for determinations of water right to allow the withdrawal of designated ground water from the Laramie-Fox Hills, Arapahoe, Denver, and Dawson aquifers underlying 900.52 acres, generally described as the SW1/4 of the SW1/4, Section 18, the W1/2 of the NW1/4 and the W1/2 of the SW1/4, Section 19, Township 11 South, Range 64 West of the 6th PM and the S1/2 of the SW1/4, Section 19 and all of Section 24, Township 11 South, Range 65 West of the 6th PM. The applicant claims ownership of this land and control of the ground water in the above-described aquifers under this property. The ground-water allocations from these aquifers will be used on the described property for the following beneficial uses: domestic, industrial, commercial, irrigation, augmentation, stock watering, recreational water feature ponds, and picnatorial habitat less than 1000 square feet and wildlife, replacement and all other augmentation purposes. The maximum allowable annual amount of ground water in each aquifer underlying the described property will be allocated.

In accordance with Section 37-90-107(7), C.R.S., and the Designated Basin Rules, 2 CCR 410-1, the Colorado Ground Water Commission shall allocate ground water from the above-described aquifers based on ownership of the overlying land and an aquifer life of one hundred years. A preliminary evaluation of the applications by the Commission Staff finds the annual amount of water available for allocation from each of the described aquifers underlying the above-described property to be as follows: 263.4 acre-feet for the Laramie-Fox Hills, 398.0 acre-feet for the Arapahoe, 528.2 acre-feet for the Denver, and 819.5 for the Dawson subject to final staff evaluation. The estimated available annual acre-feet allocation amount for each aquifer indicated above may be increased or decreased by the Commission to conform to the actual aquifer characteristics, based upon site specific data.

In accordance with Rule 5.3.6 of the Designated Basin Rules, the Commission Staff's preliminary evaluation of the applications finds the replacement water requirement status for the above aquifers underlying the above-described property to be as follows: contributory for the Laramie-Fox Hills, noncontributory for the Arapahoe, noncontributory for the Denver, and non-contributory (actual impact replacement) for the Dawson.

Upon Commission approval of these determinations of water right, well permits for wells to withdraw the allowed allocation from a specific aquifer shall be available upon application, subject to the conditions of the determination and the Designated Basin Rules and subject to approval by the Commission. Such wells must be completed in the specified aquifer and located on the above described 900.52 acre property. Well permits for wells to withdraw ground water from the Dawson aquifer would also be subject to the conditions of a replacement plan to be approved by the Commission.

Any person wishing to object to the approval of these determinations of water right must do so in writing, briefly stating the nature of the objection and indicating the above applicant, property description and the specific aquifers that are the subject of the objection. The objection must be accompanied by a \$10 per aquifer fee and must be received by the Commission Staff, Colorado Ground Water Commission, 818 Centennial Building, 1313 Sherman Street, Denver, Colorado 80203, by June 16, 2008.

First Publication May 8, 2008
Final Publication May 15, 2008
in Ranchland News
Legal No. 12,936

RECEIVED

MAY 19 2008

WATER RESOURCES
DIVISION



DEPARTMENT OF NATURAL RESOURCES

DIVISION OF WATER RESOURCES

June 27, 2008

Bill Ritter, Jr.
Governor

Harris D. Sherman
Executive Director

Dick Wolfe, P.E.
Director

George F. and Evelyn McCune
17480 Meridian Road
Elbert, CO 80106-8916

RE: Determination of Water Right

Dear Mr. and Mrs. McCune:

Enclosed is a copy of the Colorado Ground Water Commission's Findings and Order for Determination of Water Right No. 1691-BD, for the allocation of ground water in the Denver aquifer. This Findings and Order is the Commission's approval of your application for determination of right to ground water in the above stated aquifer. This document contains important information about your water right and should be reviewed and retained for your records.

As indicated in the Order, a copy of this determination must be recorded by the applicant in the public records of the county – in which the overlying land is located – so that a title examination of the overlying land claimed in the application, or any part thereof, shall reveal this determination. An additional copy of the Findings and Order is enclosed for this purpose.

If you have any questions, please contact this office.

Sincerely,

Justina P. Mickelson
Physical Science Researcher Scientist
Designated Basins Branch

Enclosures: a/s

Office of the State Engineer

1313 Sherman Street, Suite 818 • Denver, CO 80203 • Phone: 303-866-3581 • Fax: 303-866-3589

www.water.state.co.us



APPENDIX D

WELL PERMITS



OFFICE OF THE STATE ENGINEER
COLORADO DIVISION OF WATER RESOURCES
818 Centennial Bldg., 1313 Sherman St., Denver, Colorado 80203
(303) 866-3581

LIC

WELL PERMIT NUMBER 77785 -F -
DIV. 2 WD 10 DES. BASIN MD

APPLICANT

MORLEY-BENTLEY INVESTMENTS LLC
20 BOULDER CRESCENT ST
COLORADO SPRINGS, CO 80903-

(719) 491-3024

APPROVED WELL LOCATION

EL PASO COUNTY
NE 1/4 NW 1/4 Section 27
Township 12 S Range 65 W Sixth P.M.

DISTANCES FROM SECTION LINES

324 Ft. from North Section Line
2632 Ft. from West Section Line

UTM COORDINATES (Meters, Zone:13,NAD83)

Easting: Northing:

PERMIT TO CONSTRUCT A WELL

ISSUANCE OF THIS PERMIT DOES NOT CONFER A WATER RIGHT

CONDITIONS OF APPROVAL

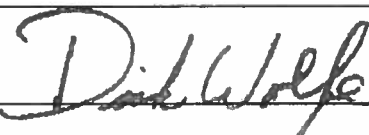
- 1) This well shall be used in such a way as to cause no material injury to existing water rights. The issuance of this permit does not ensure that no injury will occur to another vested water right or preclude another owner of a vested water right from seeking relief in a civil court action.
- 2) The 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 37-90-137(4) and the decree granted in case no. 86CW19 Division 2 Water Court. The operation of this well is subject to the terms and conditions of said decree.
- 4) The use of ground water from this well is limited to municipal, domestic, commercial, fire protection, industrial, residential, recreation, irrigation, augmentation, livestock watering and agricultural uses.
- 5) The pumping rate of this well shall not exceed 150 GPM.
- 6) The average annual amount of ground water to be appropriated shall not exceed 539 acre-feet.
- 7) Production is limited to the Laramie-Fox Hills aquifer which is located 2,345 feet below land surface and extends to a depth of 2,630 feet. Plain casing must be installed and grouted to prevent the withdrawal of ground water from other aquifers and the movement of ground water between aquifers.
- 8) The entire length of the hole shall be geophysically logged as required by Rule 9 of the Statewide Nontributary Ground Water Rules prior to installing casing.
- 9) The owner shall mark the well in a conspicuous place with well permit number(s), name of the aquifer, and court case number(s) as appropriate. The owner shall take necessary means and precautions to preserve these markings.
- 10) A totalizing flow meter must be installed on this well and maintained in good working order. Permanent records of all diversions must be maintained by the well owner (recorded at least annually) and submitted to the Division Engineer upon request.
- 11) This well shall be constructed at least 600 feet from any existing well, completed in the same aquifer, that is not owned by the applicant.
- 12) This well shall be constructed not more than 200 feet from the location specified on this permit.
- 13) Pursuant to CRS 37-90-137(9)(b) and the Denver Basin Rules, no more than 98% of the nontributary ground water withdrawn annually shall be consumed and the well owner shall demonstrate to the reasonable satisfaction of the State Engineer that no more than 98% of the water withdrawn will be consumed.
- 14) This well is subject to administration by the Division Engineer in accordance with applicable decrees, statutes, rules, and regulations.

NOTE: The ability of this well to withdraw its authorized amount of water from this non-renewable aquifer may be less than the 100 years upon which the amount of water in the aquifer is allocated, due to anticipated water level declines.

NOTE: To ensure a maximum productive life of this well, perforated casing should be set through the entire producing interval of the approved zone or aquifer indicated above.

NOTE: This permit will expire on the expiration date unless the well is constructed and a pump is installed by that date. A Well Construction and Test Report (GWS-31) and Pump Installation and Test Report (GWS-32) must be submitted to the Division of Water Resources to verify the well has been constructed and the pump has been installed. A one-time 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>

APPROVED
IDC


State Engineer


By
EXPIRATION DATE 12-19-2014

Receipt No. 3662756

DATE ISSUED 12-19-2013

OFFICE OF THE STATE ENGINEER
COLORADO DIVISION OF WATER RESOURCES
818 Centennial Bldg., 1313 Sherman St., Denver, Colorado 80203
(303) 866-3581

LIC

WELL PERMIT NUMBER 77786 - F -
DIV. 2 WD 10 DES. BASIN MD

APPLICANT

MORLEY-BENTLEY INVESTMENTS LLC
20 BOULDER CRESCENT ST
COLORADO SPRINGS, CO 80903-

(719) 491-3024

APPROVED WELL LOCATION

EL PASO COUNTY
NE 1/4 NW 1/4 Section 27
Township 12 S Range 65 W Sixth P.M.

DISTANCES FROM SECTION LINES

304 Ft. from North Section Line
2632 Ft. from West Section Line

UTM COORDINATES (Meters, Zone: 13, NAD83)

Easting: Northing:

PERMIT TO CONSTRUCT A WELL

ISSUANCE OF THIS PERMIT DOES NOT CONFER A WATER RIGHT

CONDITIONS OF APPROVAL

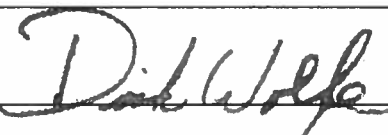
- 1) This well shall be used in such a way as to cause no material injury to existing water rights. The issuance of this permit does not ensure that no injury will occur to another vested water right or preclude another owner of a vested water right from seeking relief in a civil court action.
- 2) The 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 37-90-137(4) and the decree granted in case no. 86CW18 Division 2 Water Court. The operation of this well is subject to the terms and conditions of said decree.
- 4) The use of ground water from this well is limited to municipal, domestic, commercial, fire protection, industrial, residential, recreation, irrigation, augmentation, livestock watering and agricultural uses.
- 5) The pumping rate of this well shall not exceed 150 GPM.
- 6) The average annual amount of ground water to be appropriated shall not exceed 575 acre-feet.
- 7) Production is limited to the Arapahoe aquifer which is located 1,585 feet below land surface and extends to a depth of 2,070 feet. Plain casing must be installed and grouted to prevent the withdrawal of ground water from other aquifers and the movement of ground water between aquifers.
- 8) The entire length of the hole shall be geophysically logged as required by Rule 9 of the Statewide Nontributary Ground Water Rules prior to installing casing.
- 9) The owner shall mark the well in a conspicuous place with well permit number(s), name of the aquifer, and court case number(s) as appropriate. The owner shall take necessary means and precautions to preserve these markings.
- 10) A totalizing flow meter must be installed on this well and maintained in good working order. Permanent records of all diversions must be maintained by the well owner (recorded at least annually) and submitted to the Division Engineer upon request.
- 11) This well shall be constructed at least 600 feet from any existing well, completed in the same aquifer, that is not owned by the applicant.
- 12) This well shall be constructed not more than 200 feet from the location specified on this permit.
- 13) Pursuant to CRS 37-90-137(9)(b) and the Denver Basin Rules, no more than 98% of the nontributary ground water withdrawn annually shall be consumed and the well owner shall demonstrate to the reasonable satisfaction of the State Engineer that no more than 98% of the water withdrawn will be consumed.
- 14) This well is subject to administration by the Division Engineer in accordance with applicable decrees, statutes, rules, and regulations.

NOTE: The ability of this well to withdraw its authorized amount of water from this non-renewable aquifer may be less than the 100 years upon which the amount of water in the aquifer is allocated, due to anticipated water level declines.

NOTE: To ensure a maximum productive life of this well, perforated casing should be set through the entire producing interval of the approved zone or aquifer indicated above.

NOTE: This permit will expire on the expiration date unless the well is constructed and a pump is installed by that date. A Well Construction and Test Report (GWS-31) and Pump Installation and Test Report (GWS-32) must be submitted to the Division of Water Resources to verify the well has been constructed and the pump has been installed. A one-time 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>

APPROVED
IDC


State Engineer


By
EXPIRATION DATE 12-19-2014

Receipt No. 3662757

DATE ISSUED 12-19-2013



APPENDIX E

WATER QUALITY FROM EXISTING WELLS





Colorado Department
of Public Health
and Environment

Inorganic Chemicals Certified Laboratory Report Form
WQCD - Drinking Water CAS
4300 Cherry Creek Drive South, Denver, CO 80246-1530
Fax: (303) 758-1398; cdphe.drinkingwater@state.co.us

Revised 6/13/2014

IOC

Section I (Submitted or Completed by Public Water System)		Section II (Submitted or Completed by Certified Laboratory)	
Public Water System Information		Certified Laboratory Information	
PWSID#: CO-0121724		Laboratory ID: CO 0015	
System Name: LFH-1		Laboratory Name: Colorado Analytical Laboratory	
Contact Person: Mark Volle		Contact Person: Customer Service Phone: 303-659-2313	
Comments:		Comments:	
Do Samples Need to be Compositied BY THE LAB? <input type="checkbox"/>			

Section III (Supplied or Completed by Public Water System)			
Sample Date: 2/16/17	Collector: Stephanie Schwe	Facility ID (On Schedule):	Sample Pt ID (On Schedule):

Section IV Inorganic Chemicals (Completed by Certified Laboratory)				
Lab Receipt Date	Lab Analysis Date	Lab Sample ID	Analyte Name	CAS No.
2/17/17	2/17/17	170217005-01	Fluoride	7681-49-4
			Analytical Method	MCL (mg/L)
			EPA 300.0	4
			Lab MRL (mg/L)	0.09
			Result (mg/L)	1.07

NT: Not Tested
 Lab MRL: Laboratory Minimum Reporting Level
 BDL: Below Laboratory MRL. A less than (<) may also used.

mg/L: Milligrams per Liter
 MCL: Maximum Contaminant Level

Drinking Water Chain of Custody



LABORATORIES, INC.

Brighton Lab
240 South Main Street
Brighton, CO 80601

Lakewood Lab
12860 W. Cedar Dr, Suite 100A
Lakewood CO 80228

Phone: 303-659-2313
Fax: 303-659-2315

www.coloradolab.com

Report To Information		Bill To Information (if different from report to)		State Form / Project Information	
Company Name: <u>JDS HYDRO</u>	Company Name: <u>SR WATER</u>	PWSID: <u>CO-0121724</u>			
Contact Name: <u>MARK VOLLE</u>	Contact Name: <u>STEVE MORLEY</u>	System Name: <u>LFH-1</u>			
Address: <u>545 E. PARKS PARK AVE</u>	Address: <u>20 BOULDER CRESSANT ST</u>	Address: <u>NEW MOVA 527</u>			
<u>SUSTE 300</u>	City/COLO SRs State CO ZIP <u>80903</u>	<u>T 125 R65W 6TH PM</u>			
City/COAD SR65 State CO ZIP <u>80903</u>	City/COLO SR65 State CO ZIP <u>80903</u>	City/COLO SR65 State CO ZIP <u>80908</u>			
Phone: <u>719-227-0072</u> Fax:	Phone: Fax:	County: <u>EL PASO</u>			
Email: <u>mwalle@jdshydro.com</u>	Email: <u>smorley@srwater.com</u>	Compliance Samples: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Sampler Name: <u>STEVE SCHWENKE</u>	PO No.:	Send Forms to State: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			

CAL Task No. 170217005

PHASE I, II, V Drinking Water Analyses (check analysis)

Subcontract Analyses

Date	Time	Client Sample ID / EP Code	No. of Containers	Residual Chlorine (mg/L) P/A Samples Only	Total Coliform P/A	504.1 EDB/DBCP	505 Pests/PCBs	515.4 Herbicides	525.2 SOCs-Pest	531.1 Carbamates	547 Glyphosate	548.1 Endothal	549.2 Diquat	524.2 TTHMs	552.2 HAA5s	Lead/Copper	Nitrate	Nitrite	Fluoride ^{Drinking Water TDS}	Inorganics	Alk./Lang. Index	TOC, DOC (Circle)	SUVA, UV 254 (Circle)	1,4 Dioxene	Gross Alpha/Beta	Radium 226	Radium 228	Radon ^{Cyanide}	Uranium	
9/16	9:37	A11	3																											
9/16	9:38	A12	3																											
9/16	9:41	A13	3																											
9/16	9:43	A14	3																											
9/16	8:40	A15	1																											
9/16	8:44	A16	1																											
9/16	9:00	A17	1																											
9/16	9:43	A18	1																											
9/16	9:14	A19	3																											

Instructions:

34 + 504 Blank

SOA

CS Info: Fedex

Seals Present Yes No Headspace Yes No

Relinquished By: <u>[Signature]</u>	Date/Time: <u>9/16/17 12:15 PM</u>	Received By: <u>[Signature]</u>	Date/Time: <u>9/17/17</u>	Delivered Via: <u>Fedex</u>	Relinquished By:	CS Charge <input type="checkbox"/>	Date/Time:	Temp. <u>2</u> °C / <u>Y</u> °F	Sample Pres. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Colorado Department
of Public Health
and Environment

Inorganic Chemicals Certified Laboratory Report Form
WQCD - Drinking Water CAS
Submit Online at <http://www.wqcdcompliance.com/login>

Revised 4/13/2015

IOC

Section I (Supplied or Completed by Public Water System)		Section II (Supplied or Completed by Certified Laboratory)	
Public Water System Information		Certified Laboratory Information	
PWSID#: CO-0121724	Laboratory ID: CO 0015	Laboratory Name: Colorado Analytical Laboratory	
System Name: LFH-1	Contact Person: Mark Volle	Contact Person: Customer Service	Phone: 303-659-2313
Comments:	Do Samples Need to be Composited BY THE LAB? <input type="checkbox"/>	Comments:	

Section III (Supplied or Completed by Public Water System)	
Sample Date: 2/16/17	Collector: Stephanie Schw
Section IV Inorganic Chemicals (Completed by Certified Laboratory)	

Lab Receipt Date	Lab Analysis Date	Lab Sample ID	Analyte Name	CAS No	Analytical Method	MCL (mg/L)	Lab MRL (mg/L)	Result (mg/L)
2/17/17	2/22/17	170217005-01A	Antimony	7740-36-0	EPA 200.8	0.006	0.001	BDL
2/17/17	2/22/17	170217005-01A	Arsenic	7440-38-2	EPA 200.8	0.01	0.001	0.002
2/17/17	2/22/17	170217005-01A	Barium	7440-39-3	EPA 200.8	2	0.001	0.015
2/17/17	2/22/17	170217005-01A	Beryllium	7440-41-7	EPA 200.8	0.004	0.001	BDL
2/17/17	2/22/17	170217005-01A	Cadmium	7440-43-9	EPA 200.8	0.005	0.001	BDL
2/17/17	2/22/17	170217005-01A	Chromium	7440-47-3	EPA 200.8	0.1	0.001	0.001
2/17/17	2/22/17	170217005-01A	Mercury	7439-97-6	EPA 200.8	0.002	0.0001	BDL
2/17/17	2/22/17	170217005-01A	Nickel	7440-02-0	EPA 200.8	N/A	0.001	0.001
2/17/17	2/24/17	170217005-01A	Selenium	7782-49-2	EPA 200.8	0.05	0.001	BDL
2/17/17	2/22/17	170217005-01A	Sodium	7440-23-5	EPA 200.7	N/A	0.1	142.7
2/17/17	2/22/17	170217005-01A	Thallium	7440-28-0	EPA 200.8	0.002	0.001	BDL

NT: Not Tested
Lab MRL: Laboratory Minimum Reporting Level
BDL: Below Laboratory MRL. A less than (<) may also used.

mg/L: Milligrams per Liter
MCL: Maximum Contaminant Level

Drinking Water Chain of Custody



LABORATORIES, INC.

Brighton Lab
240 South Main Street
Brighton, CO 80601

Lakewood Lab
12860 W. Cedar Dr., Suite 100A
Lakewood CO 80228

Phone: 303-659-2313
Fax: 303-659-2315

www.coloradolab.com

Report To Information

Company Name: JDS-Hydro
Contact Name: Mark Valle

Address: 515 E. Pikes Peak Ave
Suite 200

City: CS State/Zip: 80903

Phone: 719-227-0522 Fax:

Email: myelle@jds-hydro.com

Bill To Information (if different from report to)

Company Name: SR Water
Contact Name: Jim Morley

Address: 20 Boulder Crescent St

City: Colorado Springs State/Zip: 80903

Phone: Fax:

Email: jmorley@srwater.com

State Form / Project Information

PWSID: 60-D121724
System Name: LCH-1

Address: NE 1/4 NW 1/4 S37

City: Colorado Springs State/Zip: 80908

County: El Paso

Compliance Samples: Yes No

Send Forms to State: Yes No

Under repair or terms

CAL Task No. 170217005

PHASE I, II, V Drinking Water Analytes (check analysis)

Subcontract Analytes

Date	Time	Client Sample ID / EP Code	No. of Containers	Residual Chlorine (mg/L) P/A Samples Only	Total Coliform P/A	504.1 EDB/DBCP	505 Pests/PCBs	515.4 Herbicides	524.2 VOCs	525.2 SOCs-Pest	531.1 Carbamates	547 Glyphosate	548.1 Endothal	549.2 Diquat	524.2 TTHMs	552.2 HAA5s	Lead/Copper	Nitrate	Nitrite	Fluoride	Inorganics	Alk./Lang. Index	TOC/DOC (Circle)	SUVA, UV 254 (Circle)	metals	Gross Alpha/Beta	Radium 226	Radium 228	Radon	Uranium
	9:31	#1	3			X																								
	9:32	#2	3				X																							
	9:30	#3	3								X																			
	9:34	#4	1																											
	9:33	#5	1																											
	9:30	#6	1																											
	9:32	#7	1																											
	9:34	#8	1							X																				
	9:34	#9	1																											
	9:32	#10	1																											

Instructions:

CS Info:

Scale Present Yes No Headspace Yes No

Relinquished By:

Date/Time: 10:50 AM

Received By:

Date/Time: 9:17 AM

Delivered Via: Fedex

C/S Charge:

Temp. 2 °C/°F

Sample Pres. Yes No

Signature 10/16/17 *Signature* 9/17/17



Hazen Research, Inc.
 4601 Indiana Street
 Golden, CO 80403 USA
 Tel: (303) 279-4501
 Fax: (303) 276-1528

Lab Control ID: B16917
 Received: Feb 17, 2017
 Reported: Mar 20, 2017
 Purchase Order No.
 None Received

Customer ID: 20040H
 Account ID: Z01034
 Project #: 009-616
ANALYTICAL REPORT

Stuart Nielson
Colorado Analytical Laboratories, Inc.

Lab Sample ID		B16917-001						
Customer Sample ID		170217005-01 - Lfh-1 - PWSID: CO0121724 - LFH-1 sampled on 02/16/17 @ 0906 by Stephanie Schwenke						
Parameter	Units	Code	Precision*		Detection	Method	Analysis Date / Time	Analyst
			Result	+/-	Limit			
Gross Alpha	pCi/L	T	0.0	0.0	1.5	SM 7110 B	3/2/17 @ 0840	LD
Gross Beta	pCi/L	T	0.0	2.1	2.2	SM 7110 B	3/2/17 @ 0840	LD
Radium-226	pCi/L	T	0.0	0.2	0.1	SM 7500-Ra B	3/3/17 @ 0825	LD
Radium-228	pCi/L	T	0.0	0.8	0.8	EPA Ra-05	3/14/17 @ 1257	JR
Radon	pCi/L	T	345	25	13.9	SM 7500-Rn B	2/17/17 @ 1500	AN

Certification ID's: CO/EPA CO00008; CT PH-0152; KS E-10265; NJ CO008; NYSELAP (NELAC Certified) 11417; RI LAO00284; WI 998376610, TX T104704256-15-6

*Variability of the radioactive decay process (counting error) at the 95% confidence level, 1.96 sigma.

Codes: (T) = Total (D) = Dissolved (S) = Susspended (R) = Total Residual
 (PD) = Potentially Dissolved < = Less Than



Revision 6/13/2014

RAD

Radionuclides Certified Laboratory Report Form
 WQCD – Drinking Water CAS
 4300 Cherry Creek Drive South; Denver, CO 80246-1530
 Fax: (303) 758-1398; cdphe.drinkingwater@state.co.us

Section I (Supplied or Completed by Public Water System) **Section II (Supplied or Completed by Certified Laboratory)**

Public Water System Information		Certified Laboratory Information	
PWS ID: CO0121724	Laboratory ID: CO 00008	Laboratory Name: Hazen Research, Inc.	
System Name: Lfb-1	Contact Person: Jessica Axen	Phone #: 303-279-4501	
Contact Person:	Do Samples Need to be Composited BY THE LAB?	Comments:	
Phone #:			

Section III (Supplied or Completed by Public Water System) **Section IV Radionuclides (Supplied or Completed by Certified Laboratory)**

Sample Date: 02/16/2017	Collector: Stephanie Schwenke	Facility ID (On Schedule):	Sample Pt ID (On Schedule):					
Lab Receipt Date	Lab Analysis Date	Lab Sample ID	Analyte Name (Code)	CAS No.	Analytical Method	MCL	Lab MRL	Result
02/17/2017	03/02/2017	B16917-001	Gross Alpha Including Uranium (4002)	12587-46-1	SM 7110 B	N/A	1.5	0.0(±0.0)
			Combined Uranium (4006)	7440-61-1	D2907-97	30 ug/L		
02/17/2017	03/03/2017	B16917-001	Radium -226 (4020)	13982-63-3	SM 7500-Ra B	N/A	0.1	0.0(±0.2)
02/17/2017	03/14/2017	B16917-001	Radium -228 (4030)	15262-20-1	EPA Ra-05	N/A	0.8	0.0(±0.8)
02/17/2017	03/02/2017	B16917-001	Gross Beta (4100)	12587-47-2	SM 7110 B	50 pCi/L*	2.2	0.0(±2.1)
			Total Dissolved Solids (1930)		EPA 160.3	N/A		

*The MCL for Gross Beta Particle Activity is 4 mrem/year. Since there is no simple conversion between mrem/year and pCi/L EPA considers 50 pCi/L to be the level of concern.

Section V Calculated Values		
Gross Alpha Excluding Uranium (4000)	Calculated Value	15 pCi/L
Combined Radium {-226 & -228} (4010)	Calculated Value	5 pCi/L

NT: Not Tested
 Lab MRL: Laboratory Minimum Reporting Level
 BDL: Below Laboratory MRL. A less than sign (<) may also be used
 ug/L: Micrograms per Liter
 pCi/L: PicoCuries per Liter
 MCL: Maximum Contaminant Level

Analytical Results

TASK NO: 170217005

Report To: Mark Volle
Company: JDS Hydro Consultants
 545 E. Pikes Peak Ave
 Suite 300
 Colorado Springs CO 80903

Bill To: Jim Morley
Company: SR Water
 20 Boulder Crescent St.
 Colorado Springs CO 80903

Task No.: 170217005 Date Received: 2/17/17
 Client PO: Date Reported: 3/6/17
 Client Project: LFH-1 CO-0121724 Matrix: Water - Drinking

Customer Sample ID LFH-1
 Sample Date/Time: 2/16/17
 Lab Number: 170217005-01

Test	Result	Method	ML	Date Analyzed	Analyzed By
Bicarbonate	155.5 mg/L as CaCO ₃	SM 2320-B	0.1	2/20/17	VDB
Calcium as CaCO ₃	6.3 mg/L	SM 3111-B	0.1	2/24/17	MBN
Carbonate	4.0 mg/L as CaCO ₃	SM 2320-B	0.1	2/20/17	VDB
Langelier Index	-0.43 units	SM 2330-B		2/24/17	SAN
pH	8.44 units	SM 4500-H-B	0.01	2/17/17	MBN
Temperature	20 °C	SM 4500-H-B	1	2/17/17	MBN
Total Alkalinity	159.5 mg/L as CaCO ₃	SM 2320-B	0.1	2/20/17	VDB
Total Dissolved Solids	456 mg/L	SM 2540-C	5	2/23/17	ISG

Abbreviations/ References:

ML = Minimum Level = LRL = RL
 mg/L = Milligrams Per Liter or PPM
 ug/L = Micrograms Per Liter or PPB
 mpn/100 ml = Most Probable Number Index/ 100 ml
 Date Analyzed = Date Test Completed



DATA APPROVED FOR RELEASE BY



Colorado Department
of Public Health
and Environment

Nitrate and Nitrite as Nitrogen Certified Laboratory Report Form
WQCD - Drinking Water CAS
 Submit Online at <http://www.wqcdcompliance.com/login>

Revised 4/13/2015

NOX

Section I (Supplied or Completed by Public Water System)		Section II (Supplied or Completed by Certified Laboratory)	
Public Water System Information		Certified Laboratory Information	
PWSID#: CO-0121724		Laboratory ID: CO 0015	
System Name: LFH-1		Laboratory Name: Colorado Analytical Laboratory	
Contact Person: Mark Volle	Phone #: 719-227-0072	Contact Person: Customer Service	Phone: 303-659-2313
Comments:			

Section III (Supplied or Completed by Public Water System)				Section IV (Supplied or Completed by Certified Laboratory)								
Sample Date	Collector	Facility ID On Schedule	Sample Pt. ID On Schedule	Confirmation?	Lab Receipt Date	Lab Analysis Date	1 laboratory Sample ID #	Analyte	Analytical Method	MCL (mg/L)	Lab MRI. (mg/L)	Result (mg/L)
2/16/17	ephantie Schwenk			<input type="checkbox"/>	2/17/17	2/17/17	170217005-01	Nitrate Nitrogen	EPA 300.0	10	0.1	BDL
2/16/17	ephantie Schwenk			<input type="checkbox"/>	2/17/17	2/17/17	170217005-01	Nitrite Nitrogen	EPA 300.0	1	0.1	BDL

NT: Not Tested
 Lab MRI.: Laboratory Minimum Reporting Level
 BDL.: Below Laboratory MRI. A less than (<) may also used.

mg/L: Milligrams per Liter
 MCL: Maximum Contaminant Level

Drinking Water Chain of Custody



LABORATORIES, INC.

Brighton Lab
240 South Main Street
Brighton, CO 80601

Lakewood Lab
12860 W. Cedar Dr, Suite 100A
Lakewood CO 80228

Phone: 303-659-2313
Fax: 303-659-2315

www.coloradolab.com

please report results on state forms

Report To Information		Bill To Information (if different from report to)		State Form / Project Information	
Company Name: JDS HURO	Contact Name: MARK VOLLE	Company Name: SR WATER	Contact Name: JIM MOKLEY	PWSID: CO-0121724	System Name: LFH-1
Address: 545 E. BOXES PEAK AVE SIXTH 300		Address: 20 BOUNDER CRESSANT ST		Address: NEW 1/4 527 T 125 R65W 6TH PM	
City/CO ZIP: State CO ZIP 80903	City/CO ZIP: State CO ZIP 80903	City/CO ZIP: State CO ZIP 80903	City/CO ZIP: State CO ZIP 80908	County: EL PASO	
Phone: 719-221-0072 Fax:	Phone:	Fax:		Compliance Samples: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Email: mvalle@jdsjhdn.com	Email: jimorley@srwater.com	Send Forms to State: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
Sampler Name: STEPH SCHWENKE	PO No.:				

CAL Task No. 170217005

PHASE I, II, V Drinking Water Analyses (check analysis)

Subcontract Analyses

Date	Time	Client Sample ID / EP Code	No. of Containers	Residual Chlorine (mg/L) P/A Samples Only	Total Coliform P/A	504.1 EDB/DBCP	505 Pests/PCBs	515.4 Herbicides	525.2 SOCs-Pest	531.1 Carbamates	547 Glyphosate	548.1 Endothall	549.2 Diquat	524.2 TTHMs	552.2 HAA5s	Lead/Copper	Nitrate	Nitrite	Fluoride ^{Drinking Water TDS}	Inorganics	Alk./Lang. Index	TOC, DOC (Circle)	SUVA, UV 254 (Circle)	1,4 Dioxane	Gross Alpha/Beta	Radium 226	Radium 228	Radon Cyanide	Uranium	
																														CS Info:
9/16	8:31	#11	3																											
9/16	9:50	#12	3																											
9/16	9:41	#13	3																											
9/16	9:43	#14	1																											
9/16	8:40	#15	1																											
9/16	8:44	#16	1																											
9/16	9:00	#17	1																											
9/16	8:42	#18	1																											
9/16	9:19	#19	3																											

Instructions:

34 + 504 Blank

VOA

Delivered Via: Fedex

Seals Present Yes No Headspace Yes No

Relinquished By: JDS

Date/Time: 9/16/17 12:15 PM

Received By: MOKLEY

Date/Time: 9/17/17 0800

Relinquished By:

CS Charge

Temp. Received By: 2 °C/ice

Sample Pres. Yes No



Colorado Department
of Public Health
and Environment

Organic Chemicals Certified Laboratory Report Form
WQCD - Drinking Water CAS
Submit Online at <http://www.wqcdcompliance.com/login>

Revised 4/13/2015

VOC/SOC

Section I (Supplied or Completed by Public Water System)	Section II (Supplied or Completed by Certified Laboratory)
Public Water System Information	Certified Laboratory Information
PWSID#: CO-0121724	Laboratory ID: CO 00063
System Name: LFH-1	Laboratory Name: Colorado Analytical Laboratory
Contact Person: Mark Voile	Contact Person: Customer Service Phone: 303-659-2313
Comments:	Comments:
Do Samples Need to be Composited BY THE LAB? <input type="checkbox"/>	

Section V (Supplied or Completed by Public Water System)		Section VI Synthetic Organic Chemicals (Supplied or Completed by Certified Laboratory)		Section VII (On Schedule)		Section VIII (On Schedule)		
Lab Receipt Date	Lab Analysis Date	Lab Sample ID	Analyte Name	CAS No.	Analytical Method	MCL (ug/L)	Lab MRL (ug/L)	Result (ug/L)
2/17/17	2/24/17	170217005-01E	Dibromochloropropane	96-12-8	EPA 504.1	0.2	0.02	BDL
2/17/17	3/1/17	170217005-01G	2,4-D	94-75-7	EPA 515.4	70	0.1	BDL
2/17/17	3/1/17	170217005-01G	2,4,5-TP	93-72-1	EPA 515.4	50	0.2	BDL
2/17/17	2/23/17	170217005-01H	Aldicarb	15972-60-8	EPA 525.2	2	0.2	BDL
2/17/17	3/2/17	170217005-01I	Aldicarb	116-06-3	EPA 531.1	N/A	0.6	BDL
2/17/17	3/2/17	170217005-01I	Aldicarb sulfone	1646-88-4	EPA 531.1	N/A	1	BDL
2/17/17	3/2/17	170217005-01I	Aldicarb sulfoxide	1646-87-3	EPA 531.1	N/A	0.7	BDL
2/17/17	2/23/17	170217005-01H	Atrazine	1912-24-9	EPA 525.2	3	0.1	BDL
2/17/17	2/23/17	170217005-01H	Benzo(a)pyrene	50-32-8	EPA 525.2	0.2	0.02	BDL
2/17/17	3/2/17	170217005-01I	Carbofuran	1563-66-2	EPA 531.1	40	0.9	BDL
2/17/17	2/24/17	170217005-01F	Chlordane	57-74-9	EPA 505	2	0.2	BDL
2/17/17	3/1/17	170217005-01G	Dalapon	75-99-0	EPA 515.4	200	1	BDL
2/17/17	2/23/17	170217005-01H	Di(2-ethylhexyl)adipate	103-23-1	EPA 525.2	400	0.6	BDL
2/17/17	2/23/17	170217005-01H	Di(2-ethylhexyl)phthalate	117-81-7	EPA 525.2	6	0.6	BDL
2/17/17	3/1/17	170217005-01G	Dinosob	85-85-7	EPA 515.4	7	0.2	BDL
2/17/17	2/23/17	170217005-01K	Diquat	85-00-7	EPA 549.2	20	0.4	BDL
2/17/17	2/23/17	170217005-01J	Endothall	145-73-3	EPA 548.1	100	9	BDL
2/17/17	2/24/17	170217005-01F	Endrin	72-20-8	EPA 505	2	0.01	BDL
2/17/17	2/24/17	170217005-01E	Ethylene dibromide	106-93-4	EPA 504.1	0.05	0.01	BDL
2/17/17	2/23/17	170217005-01H	Heptachlor	76-44-8	EPA 525.2	0.4	0.04	BDL
2/17/17	2/24/17	170217005-01F	Heptachlor epoxide	1024-57-3	EPA 505	0.2	0.02	BDL

NT: Not Tested ug/L; Micrograms per Liter MCL: Maximum Contaminant Level BDL Below Laboratory MRL ^ Less than sign (<) may also be used.

PWSID#: CO-0121724		Section V (Supplied or Completed by Public Water System)						
Sample Date:	2/16/17	Collector:	Stephanie Schwenk	Facility ID (On Schedule):	Sample Pt ID (On Schedule):			
Section VI Synthetic Organic Chemicals (Supplied or Completed by Certified Laboratory)		Lab Sample ID	Analyte Name	CAS No.	Analytical Method	MCL (ug/L)	Lab MRL (ug/L)	Result (ug/L)
2/17/17	2/24/17	170217005-01F	Hexachlorobenzene	118-74-1	EPA 505	1	0.1	BDL
2/17/17	2/24/17	170217005-01F	Hexachlorocyclopentadiene	77-47-4	EPA 505	50	0.1	BDL
2/17/17	2/24/17	170217005-01F	Lindane	58-89-9	EPA 505	0.2	0.02	BDL
2/17/17	2/24/17	170217005-01F	Methoxychlor	72-43-5	EPA 505	40	0.1	BDL
2/17/17	3/2/17	170217005-01I	Oxamyl	23135-22-0	HPA 531.1	200	1	BDL
2/17/17	3/1/17	170217005-01G	Pentachlorophenol	87-86-5	EPA 515.4	1	0.04	BDL
2/17/17	3/1/17	170217005-01G	Picloram	1918-02-1	EPA 515.4	500	0.1	BDL
2/17/17	2/24/17	170217005-01F	Polychlorinated biphenyl's	1336-36-3	EPA 505	0.5	0.1	BDL
2/17/17	2/23/17	170217005-01H	Simazine	122-34-9	EPA 525.2	4	0.07	BDL
2/17/17	2/24/17	170217005-01F	Toxaphene	8001-35-2	EPA 505	3	1	BDL

NT: Not Tested ug/L; Micrograms per Liter MCL: Maximum Contaminant Level BDL: Below Laboratory MRL Δ less than sign (<) may also be used.

170217005-01

2/2
3/6/17

Drinking Water Chain of Custody



LABORATORIES, INC.

Brighton Lab
240 South Main Street
Brighton, CO 80601

Lakewood Lab
12860 W. Cedar Dr., Suite 100A
Lakewood CO 80228

Phone: 303-659-2313
Fax: 303-659-2315

www.coloradolab.com

Report To Information
 Company Name: IDS-Hydro
 Contact Name: Mark Valle
 Address: 545 E. Pikes Peak Ave
 Suite 200
 City: CS State: CO Zip: 80903
 Phone: 719-227-0572 Fax: _____
 Email: mvalle@jshydro.com

Bill To Information (if different from report to)
 Company Name: SR Water
 Contact Name: Jim Morley
 Address: 20 Boulder Crescent St
 City: Colo Spgs State: CO Zip: 80903
 Phone: _____ Fax: _____
 Email: jmorley@srwater.com

State Form / Project Information
 PWSID: Co-D121724
 System Name: LFH-1
 Address: NE 1/4 NW 1/4 S27
 T12S R6SW 6th PM
 City: Colo Spgs State: CO Zip: 80908
 County: El Paso

Compliance Samples: Yes No
 Send Forms to State: Yes No *br terms*

CAL Task No.
170217005

PHASE I, II, V Drinking Water Analyses (check analysis)

Subcontract Analyses

Date	Time	Client Sample ID / EP Code	No. of Containers	Residual Chlorine (mg/L) P/A Samples Only	Total Coliform P/A	504.1 EDB/DBCP	505 Pests/PCBs	515.4 Herbicides	524.2 VOCs	525.2 SOCs-Pest	531.1 Carbamates	547 Glyphosate	548.1 Endothall	549.2 Diquat	524.2 TTHMs	552.2 HAA5s	Lead/Copper	Nitrate	Nitrite	Fluoride	Inorganics	Alk./Lang. Index	TOC/DOC (Circle)	SUVA, UV 254 (Circle)	metals	Gross Alpha/Beta	Radium 226	Radium 228	Radon	Uranium
9/21		#1	3			X																								
9/22		#2	3				X																							
9/30		#3	3																											
9/24		#4	3								X																			
9/25		#5	3																											
9/26		#6	3																											
9/27		#7	3																											
9/28		#8	3							X																				
9/29		#9	3																											
9/29		#10	3																											

Instructions:

C/S Info:

Seals Present Yes No Headspace Yes No

Relinquished By: *[Signature]* Date/Time: 10/16/17 Received By: *[Signature]* Date/Time: 9/17/17 6:00

Delivered Via: *Fedex* Relinquished By: *[Signature]* Date/Time: *[Signature]*

C/S Change: Temp: *2* °C/lc Sample Pres. Yes No

Relinquished By: *[Signature]* Date/Time: 10/16/17 Received By: *[Signature]* Date/Time: 9/17/17 6:00

Drinking Water Chain of Custody



LABORATORIES, INC.

Brighton Lab
240 South Main Street
Brighton, CO 80601

Lakewood Lab
12860 W. Cedar Dr, Suite 100A
Lakewood CO 80228

Phone: 303-659-2313
Fax: 303-659-2315

www.coloradolab.com

Report To Information		Bill To Information (if different from report to)		State Form / Project Information	
Company Name: <u>JDS HYDRO</u>	Company Name: <u>SR WATER</u>	State Form / Project Information		PWSID: <u>CO-0121724</u>	
Contact Name: <u>MARK VOLLE</u>	Contact Name: <u>JEFF MOKLEY</u>			System Name: <u>LFH-1</u>	
Address: <u>545 E. BOKES PEAK AVE</u>	Address: <u>20 BOULDER CRESSANT ST</u>			Address: <u>NEW NW 1/4 S27</u>	
<u>SUITE 300</u>				<u>T 125 R65W 6TH PM</u>	
City/CO ZIP: <u>State CO zip 80903</u>	City/CO ZIP: <u>State CO zip 80903</u>			City/CO ZIP: <u>State CO zip 80908</u>	
Phone: <u>719-227-0072</u> Fax:	Phone: <u>719-227-0072</u> Fax:			County: <u>EL PASO</u>	
Email: <u>mark.volle@jdshydro.com</u>	Email: <u>jeff.mokley@srwater.com</u>			Compliance Samples: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Sampler Name: <u>STEPA SCHWENKE</u>	PO No.:			Send forms to State: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

CAL Task No. 170217005

PHASE I, II, V Drinking Water Analyses (check analysis)

Subcontract Analyses

Date	Time	Client Sample ID / EP Code	No. of Containers	Residual Chlorine (mg/L) P/A Samples Only	Total Coliform P/A	504.1 EDB/DBCP	505 Pests/PCBs	515.4 Herbicides	525.2 SOC's-Pest	531.1 Carbamates	547 Glyphosate	548.1 Endothall	549.2 Diquat	524.2 TTHMs	552.2 HAA5s	Lead/Copper	Nitrate	Nitrite	Fluoride ^{Drinking Water}	Inorganics	Alk./Lang. Index	TOC, DOC (Circle)	SUVA, UV 254 (Circle)	1,4 Dioxane	Gross Alpha/Beta	Radium 226	Radium 228	Radon ^{Cyanide}	Uranium	
2/16	8:37	A11	3																											
	9:50	A12	3																											
	9:51	A13	3																											
	9:43	A14	1																											
	8:40	A15	1																											
	8:44	A16	1					X																						
	9:00	A17	1																											
	5:42	A18	1																											
	9:29	A19	3					X																						

Instructions:

34 + 504 Blank

VOA

Delivered Via: Fedex

Seals Present Yes No Headspace Yes No

Relinquished By: <u>[Signature]</u>	Date/Time: <u>2/17 12:15 PM</u>	Received By: <u>[Signature]</u>	Date/Time: <u>2/17 11:00 AM</u>	Relinquished By:	Date/Time:	Temp. <u>2</u> °C/lit	Received By:	Sample Pres. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Date/Time:
-------------------------------------	---------------------------------	---------------------------------	---------------------------------	------------------	------------	-----------------------	--------------	--	------------

Analytical Results

TASK NO: 170217005

Report To: Mark Voile

Company: JDS Hydro Consultants
545 E. Pikes Peak Ave
Suite 300
Colorado Springs CO 80903

Bill To: Jim Morley

Company: SR Water
20 Boulder Crescent St.
Colorado Springs CO 80903

Task No.: 170217005
Client PO:
Client Project: LFH-1 CO-0121724

Date Received: 2/17/17
Date Reported: 3/6/17
Matrix: Water - Drinking

Customer Sample ID LFH-1
Sample Date/Time: 2/16/17
Lab Number: 170217005-01

Test	Result	Method	ML	Date Analyzed	Analyzed By
Chloride	5.8 mg/L	EPA 300.0	0.1 mg/L	2/17/17	LJG
Cyanide-Free	< 0.005 mg/L	EPA 335.4	0.005 mg/L	2/24/17	VDB
E-Coli	< 1 mpn/100ml	Colitert	1 mpn/100ml	2/18/17	VDB
Sulfate	142.1 mg/L	EPA 300.0	0.1 mg/L	2/17/17	LJG
Total Coliform	93 mpn/100ml	Colitert	1 mpn/100ml	2/18/17	VDB
Total Organic Carbon	0.8 mg/L	SM 5310-C	0.5 mg/L	2/23/17	ISG
Turbidity	2.49 NTU	SM 2130-B	0.01 NTU	2/17/17	MBN
Total					
Aluminum	0.053 mg/L	EPA 200.8	0.001 mg/L	2/22/17	TCD
Calcium	2.5 mg/L	EPA 200.7	0.1 mg/L	2/22/17	MBN
Copper	0.0026 mg/L	EPA 200.8	0.0008 mg/L	2/22/17	TCD
Iron	0.602 mg/L	EPA 200.7	0.005 mg/L	2/24/17	MBN
Lead	0.0005 mg/L	EPA 200.8	0.0001 mg/L	2/22/17	TCD
Magnesium	0.39 mg/L	EPA 200.7	0.02 mg/L	2/22/17	MBN
Manganese	0.0259 mg/L	EPA 200.8	0.0008 mg/L	2/22/17	TCD
Potassium	1.5 mg/L	EPA 200.7	0.1 mg/L	2/22/17	MBN
Silver	< 0.0001 mg/L	EPA 200.8	0.0001 mg/L	2/22/17	TCD
Strontium	0.037 mg/L	EPA 200.8	0.005 mg/L	2/22/17	TCD
Total Hardness	7.7 mg/L as CaCO3	SM 2340-B	0.1 mg/L as CaCO3	2/24/17	MBN
Uranium	< 0.0002 mg/L	EPA 200.8	0.0002 mg/L	2/22/17	TCD
Zinc	0.004 mg/L	EPA 200.8	0.001 mg/L	2/22/17	TCD

Abbreviations/ References:

ML = Minimum Level = LRL = RL
mg/L = Milligrams Per Liter or PPM
ug/L = Micrograms Per Liter or PPB
mpn/100 ml = Most Probable Number Index/ 100 ml
Date Analyzed = Date Test Completed



DATA APPROVED FOR RELEASE BY

Analytical Results

TASK NO: 170217005

Report To: Mark Voile

Company: JDS Hydro Consultants
545 E. Pikes Peak Ave
Suite 300
Colorado Springs CO 80903

Bill To: Jim Morley

Company: SR Water
20 Boulder Crescent St.
Colorado Springs CO 80903

Task No.: 170217005
Client PO:
Client Project: LFH-1 CO-0121724

Date Received: 2/17/17
Date Reported: 3/6/17
Matrix: Water - Drinking

Customer Sample ID: LFH-1
Sample Date/Time: 2/16/17
Lab Number: 170217005-01

Test	Result	Method	ML	Date Analyzed	Analyzed By
<u>Total</u> Zinc	0.005 mg/L	EPA 200.8	0.001 mg/L	2/22/17	TCD

Abbreviations/ References:

ML = Minimum Level = LRL = RL
mg/L = Milligrams Per Liter or PPM
ug/L = Micrograms Per Liter or PPB
mpn/100 ml = Most Probable Number Index/ 100 ml
Date Analyzed = Date Test Completed



DATA APPROVED FOR RELEASE BY



ANALYTICAL SUMMARY REPORT

March 02, 2017

Colorado Analytical Laboratories Inc
PO Drawer 507
Brighton, CO 80601

Work Order: C17020566 Quote ID: C4542 - 624, 625, 1,4-Dioxane
Project Name: 170217005 LFH-1 CO-0121724

Energy Laboratories, Inc. Casper WY received the following 1 sample for Colorado Analytical Laboratories Inc on 2/21/2017 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C17020566-001	170217005-01 LFH-1	02/16/17 0:00	02/21/17	Drinking Water	Azeotropic Distillation Separatory Funnel Liquid-Liquid Ext. Semi-Volatile Organic Compounds 624-Purgeable Organics Volatile Compounds by Azeotropic Distillation

The results as reported relate only to the item(s) submitted for testing. The analyses presented in this report were performed at Energy Laboratories, Inc., 2393 Salt Creek Hwy., Casper, WY 82601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

If you have any questions regarding these test results, please call.

Report Approved By:


Randy Horton, Project Manager

Digitally signed by
Randy Horton
Date: 2017.03.02 10:49:28 -07:00



CLIENT: Colorado Analytical Laboratories Inc
Project: 170217005 LFH-1 CO-0121724
Work Order: C17020566

Report Date: 03/02/17

CASE NARRATIVE

Tests associated with analyst identified as ELI-B were subcontracted to Energy Laboratories, 1120 S. 27th St., Billings, MT, EPA Number MT00005.



LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Colorado Analytical Laboratories Inc
Project: 170217005 LFH-1 CO-0121724
Lab ID: C17020566-001
Client Sample ID: 170217005-01 LFH-1

Report Date: 03/02/17
Collection Date: 02/16/17
Date Received: 02/21/17
Matrix: Drinking Water

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOCS BY AZEOTROPIC DISTILLATION							
1,4-Dioxane	ND	ug/L		1.0		SW8260M	02/27/17 11:16 / eli-b
- Analysis by direct aqueous injection of the sample distillate. A deuterated version of 1,4-Dioxane was added to the sample prior to distillation and used to quantitate the 1,4-Dioxane and account for any variations in the analysis or distillation.							
VOLATILE ORGANIC COMPOUNDS							
Acetone	ND	ug/L		20		E624	02/24/17 19:19 / eli-b
Acetonitrile	ND	ug/L		20		E624	02/24/17 19:19 / eli-b
Acrolein	ND	ug/L		20		E624	02/24/17 19:19 / eli-b
Acrylonitrile	ND	ug/L		20		E624	02/24/17 19:19 / eli-b
Benzene	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Bromobenzene	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Bromochloromethane	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Bromodichloromethane	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Bromoform	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Bromomethane	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Carbon disulfide	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Carbon tetrachloride	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Chlorobenzene	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Chlorodibromomethane	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Chloroethane	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
2-Chloroethyl vinyl ether	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Chloroform	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Chloromethane	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
2-Chlorotoluene	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
4-Chlorotoluene	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
1,2-Dibromoethane	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Dibromomethane	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
1,2-Dichlorobenzene	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
1,3-Dichlorobenzene	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
1,4-Dichlorobenzene	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Dichlorodifluoromethane	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
1,1-Dichloroethane	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
1,2-Dichloroethane	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
1,1-Dichloroethene	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
cis-1,2-Dichloroethene	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
trans-1,2-Dichloroethene	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
1,2-Dichloropropane	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
1,3-Dichloropropane	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
2,2-Dichloropropane	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
1,1-Dichloropropene	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
cis-1,3-Dichloropropene	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
trans-1,3-Dichloropropene	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Ethylbenzene	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Colorado Analytical Laboratories Inc
Project: 170217005 LFH-1 CO-0121724
Lab ID: C17020566-001
Client Sample ID: 170217005-01 LFH-1

Report Date: 03/02/17
Collection Date: 02/16/17
Date Received: 02/21/17
Matrix: Drinking Water

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		2.0		E624	02/24/17 19:19 / eli-b
Methyl ethyl ketone	ND	ug/L		20		E624	02/24/17 19:19 / eli-b
Methyl isobutyl ketone	ND	ug/L		10		E624	02/24/17 19:19 / eli-b
Methylene chloride	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Naphthalene	ND	ug/L		0.50		E624	02/24/17 19:19 / eli-b
Styrene	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Tetrachloroethene	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
1,1,1,2-Tetrachloroethane	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Toluene	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Trichloroethene	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
1,1,1-Trichloroethane	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
1,1,2-Trichloroethane	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Trichlorofluoromethane	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
1,2,3-Trichloropropane	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Vinyl Acetate	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Vinyl chloride	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
m+p-Xylenes	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
o-Xylene	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Xylenes, Total	ND	ug/L		1.0		E624	02/24/17 19:19 / eli-b
Surr: 1,2-Dichloroethane-d4	76.0	%REC		71-139		E624	02/24/17 19:19 / eli-b
Surr: p-Bromofluorobenzene	92.0	%REC		80-127		E624	02/24/17 19:19 / eli-b
Surr: Toluene-d8	94.0	%REC		80-123		E624	02/24/17 19:19 / eli-b
SEMI-VOLATILE ORGANIC COMPOUNDS							
Acenaphthene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Acenaphthylene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Anthracene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Azobenzene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Benzidine	ND	ug/L		10		E625	02/28/17 13:13 / eli-b
Benzo(a)anthracene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Benzo(a)pyrene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Benzo(b)fluoranthene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Benzo(g,h,i)perylene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Benzo(k)fluoranthene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
4-Bromophenyl phenyl ether	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Butylbenzylphthalate	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
4-Chloro-3-methylphenol	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
bis(-2-chloroethoxy)Methane	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
bis(-2-chloroethyl)Ether	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
bis(2-chloroisopropyl)Ether	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
2-Chloronaphthalene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
2-Chlorophenol	ND	ug/L		10		E625	02/27/17 19:27 / eli-b

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Colorado Analytical Laboratories Inc
Project: 170217005 LFH-1 CO-0121724
Lab ID: C17020566-001
Client Sample ID: 170217005-01 LFH-1

Report Date: 03/02/17
Collection Date: 02/16/17
Date Received: 02/21/17
Matrix: Drinking Water

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SEMI-VOLATILE ORGANIC COMPOUNDS							
4-Chlorophenyl phenyl ether	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Chrysene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Diethyl phthalate	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Di-n-butyl phthalate	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
1,2-Dichlorobenzene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
1,3-Dichlorobenzene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
1,4-Dichlorobenzene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
3,3'-Dichlorobenzidine	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
2,4-Dichlorophenol	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Dimethyl phthalate	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Di-n-octyl phthalate	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Dibenzo(a,h)anthracene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
2,4-Dimethylphenol	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
4,6-Dinitro-2-methylphenol	ND	ug/L		50		E625	02/27/17 19:27 / eli-b
2,4-Dinitrophenol	ND	ug/L		50		E625	02/27/17 19:27 / eli-b
2,4-Dinitrotoluene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
2,6-Dinitrotoluene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
bis(2-ethylhexyl)Phthalate	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Fluoranthene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Fluorene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Hexachlorobenzene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Hexachlorobutadiene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Hexachlorocyclopentadiene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Hexachloroethane	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Indeno(1,2,3-cd)pyrene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Isophorone	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
n-Nitrosodimethylamine	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
n-Nitroso-di-n-propylamine	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
n-Nitrosodiphenylamine	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
2-Nitrophenol	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
4-Nitrophenol	ND	ug/L		50		E625	02/27/17 19:27 / eli-b
Naphthalene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Nitrobenzene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Pentachlorophenol	ND	ug/L		50		E625	02/27/17 19:27 / eli-b
Phenanthrene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Phenol	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Pyrene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
1,2,4-Trichlorobenzene	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
2,4,6-Trichlorophenol	ND	ug/L		10		E625	02/27/17 19:27 / eli-b
Surr: 2-Fluorobiphenyl	59.0	%REC		28-107		E625	02/27/17 19:27 / eli-b
Surr: 2-Fluorophenol	34.0	%REC		20-56		E625	02/27/17 19:27 / eli-b
Surr: Nitrobenzene-d5	63.0	%REC		32-94		E625	02/27/17 19:27 / eli-b
Surr: Phenol-d5	33.0	%REC		19-45		E625	02/27/17 19:27 / eli-b

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Colorado Analytical Laboratories Inc
Project: 170217005 LFH-1 CO-0121724
Lab ID: C17020566-001
Client Sample ID: 170217005-01 LFH-1

Report Date: 03/02/17
Collection Date: 02/16/17
Date Received: 02/21/17
Matrix: Drinking Water

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
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SEMI-VOLATILE ORGANIC COMPOUNDS

Surr: Terphenyl-d14	69.0	%REC		32-122		E625	02/27/17 19:27 / eli-b
Surr: 2,4,6-Tribromophenol	60.0	%REC		21-130		E625	02/27/17 19:27 / eli-b

• The sample was received past the extraction prep hold time. The prep hold time was exceeded by 4.31 days.

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc
Project: 170217005 LFH-1 CO-0121724

Report Date: 03/02/17
Work Order: C17020566

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
Method: E624							Analytical Run: R275391			
Lab ID: ccv022417	Continuing Calibration Verification Standard							02/24/17 09:51		
Acetone	40.8	ug/L	20	82	70	130				
Acetonitrile	60.0	ug/L	20	120	70	130				
Acrolein	59.2	ug/L	20	118	70	130				
Acrylonitrile	46.4	ug/L	20	93	70	130				
Benzene	4.80	ug/L	0.50	96	70	130				
Bromobenzene	4.56	ug/L	0.50	91	70	130				
Bromochloromethane	4.64	ug/L	0.50	93	70	130				
Bromodichloromethane	4.08	ug/L	0.50	82	70	130				
Bromoform	4.08	ug/L	0.50	82	70	130				
Bromomethane	5.56	ug/L	0.50	111	70	130				
Carbon disulfide	4.80	ug/L	0.50	96	70	130				
Carbon tetrachloride	3.70	ug/L	0.50	74	70	130				
Chlorobenzene	4.80	ug/L	0.50	96	70	130				
Chlorodibromomethane	4.32	ug/L	0.50	86	70	130				
Chloroethane	4.88	ug/L	0.50	98	70	130				
2-Chloroethyl vinyl ether	3.07	ug/L	1.0	61	70	130			S	
Chloroform	4.36	ug/L	0.50	87	70	130				
Chloromethane	4.60	ug/L	0.50	92	70	130				
2-Chlorotoluene	4.84	ug/L	0.50	97	70	130				
4-Chlorotoluene	4.80	ug/L	0.50	96	70	130				
1,2-Dibromoethane	4.40	ug/L	0.50	88	70	130				
Dibromomethane	4.60	ug/L	0.50	92	70	130				
1,2-Dichlorobenzene	4.72	ug/L	0.50	94	70	130				
1,3-Dichlorobenzene	4.84	ug/L	0.50	97	70	130				
1,4-Dichlorobenzene	4.76	ug/L	0.50	95	70	130				
Dichlorodifluoromethane	3.87	ug/L	0.50	77	70	130				
1,1-Dichloroethane	4.40	ug/L	0.50	88	70	130				
1,2-Dichloroethane	3.78	ug/L	0.50	76	70	130				
1,1-Dichloroethene	4.20	ug/L	0.50	84	70	130				
cis-1,2-Dichloroethene	4.72	ug/L	0.50	94	70	130				
trans-1,2-Dichloroethene	4.64	ug/L	0.50	93	70	130				
1,2-Dichloropropane	5.20	ug/L	0.50	104	70	130				
1,3-Dichloropropane	4.64	ug/L	0.50	93	70	130				
2,2-Dichloropropane	3.92	ug/L	0.50	78	70	130				
1,1-Dichloropropene	4.40	ug/L	0.50	88	70	130				
cis-1,3-Dichloropropene	4.56	ug/L	0.50	91	70	130				
trans-1,3-Dichloropropene	4.04	ug/L	0.50	81	70	130				
Ethylbenzene	4.84	ug/L	0.50	97	70	130				
Methyl tert-butyl ether (MTBE)	3.68	ug/L	0.50	74	70	130				
Methyl ethyl ketone	42.8	ug/L	20	86	70	130				
Methyl isobutyl ketone	45.6	ug/L	20	91	70	130				
Methylene chloride	5.44	ug/L	0.50	109	70	130				
Naphthalene	4.88	ug/L	0.50	98	70	130				

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.



QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc
Project: 170217005 LFH-1 CO-0121724

Report Date: 03/02/17
Work Order: C17020566

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E624							Analytical Run: R275391		
Lab ID: ccv022417	Continuing Calibration Verification Standard						02/24/17 09:51		
Styrene	4.76	ug/L	0.50	95	70	130			
Tetrachloroethene	4.60	ug/L	0.50	92	70	130			
1,1,1,2-Tetrachloroethane	4.24	ug/L	0.50	85	70	130			
1,1,2,2-Tetrachloroethane	4.96	ug/L	0.50	99	70	130			
Toluene	4.96	ug/L	0.50	99	70	130			
Trichloroethene	4.80	ug/L	0.50	96	70	130			
1,1,1-Trichloroethane	3.75	ug/L	0.50	75	70	130			
1,1,2-Trichloroethane	4.76	ug/L	0.50	95	70	130			
Trichlorofluoromethane	3.34	ug/L	0.50	67	70	130			S
1,2,3-Trichloropropane	4.20	ug/L	0.50	84	70	130			
Vinyl Acetate	4.56	ug/L	1.0	91	70	130			
Vinyl chloride	4.84	ug/L	0.50	97	70	130			
m+p-Xylenes	9.76	ug/L	0.50	98	70	130			
o-Xylene	4.76	ug/L	0.50	95	70	130			
Xylenes, Total	14.5	ug/L	0.50	97	70	130			
Surr: 1,2-Dichloroethane-d4			0.50	74	71	139			
Surr: p-Bromofluorobenzene			0.50	88	80	127			
Surr: Toluene-d8			0.50	92	80	123			

Method: E624							Batch: R275391		
Lab ID: lcs022417	Laboratory Control Sample						Run: 5971A.I_170224A		
							02/24/17 10:31		
Acetone	41.6	ug/L	20	83	55	144			
Acetonitrile	60.4	ug/L	20	121	54	142			
Acrolein	49.6	ug/L	20	99	16	233			
Acrylonitrile	46.0	ug/L	20	92	76	127			
Benzene	4.96	ug/L	0.50	99	73	122			
Bromobenzene	4.76	ug/L	0.50	95	74	129			
Bromochloromethane	4.64	ug/L	0.50	93	66	120			
Bromodichloromethane	4.44	ug/L	0.50	89	74	128			
Bromoform	4.36	ug/L	0.50	87	66	128			
Bromomethane	5.76	ug/L	0.50	115	51	123			
Carbon disulfide	4.92	ug/L	0.50	98	46	145			
Carbon tetrachloride	3.80	ug/L	0.50	76	75	125			
Chlorobenzene	4.92	ug/L	0.50	98	80	123			
Chlorodibromomethane	4.64	ug/L	0.50	93	74	125			
Chloroethane	5.04	ug/L	0.50	101	59	142			
2-Chloroethyl vinyl ether	2.74	ug/L	1.0	55	36	144			
Chloroform	4.40	ug/L	0.50	88	68	124			
Chloromethane	4.64	ug/L	0.50	93	53	146			
2-Chlorotoluene	5.04	ug/L	0.50	101	75	131			
4-Chlorotoluene	4.68	ug/L	0.50	94	74	129			
1,2-Dibromoethane	4.40	ug/L	0.50	88	76	124			
Dibromomethane	4.76	ug/L	0.50	95	77	125			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.



QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc
Project: 170217005 LFH-1 CO-0121724

Report Date: 03/02/17
Work Order: C17020566

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E624							Batch: R275391		
Lab ID: lcs022417	Laboratory Control Sample				Run: 5971A.L_170224A		02/24/17 10:31		
1,2-Dichlorobenzene	4.80	ug/L	0.50	96	74	124			
1,3-Dichlorobenzene	5.00	ug/L	0.50	100	77	122			
1,4-Dichlorobenzene	4.80	ug/L	0.50	96	76	126			
Dichlorodifluoromethane	4.36	ug/L	0.50	87	56	146			
1,1-Dichloroethane	4.56	ug/L	0.50	81	74	133			
1,2-Dichloroethane	3.76	ug/L	0.50	75	75	129			
1,1-Dichloroethene	4.28	ug/L	0.50	86	74	132			
cis-1,2-Dichloroethene	4.76	ug/L	0.50	95	81	122			
trans-1,2-Dichloroethene	5.08	ug/L	0.50	102	79	143			
1,2-Dichloropropane	5.20	ug/L	0.50	104	75	126			
1,3-Dichloropropane	4.32	ug/L	0.50	86	71	136			
2,2-Dichloropropane	4.00	ug/L	0.50	80	68	142			
1,1-Dichloropropene	4.16	ug/L	0.50	83	70	131			
cis-1,3-Dichloropropene	4.12	ug/L	0.50	82	74	135			
trans-1,3-Dichloropropene	3.96	ug/L	0.50	79	76	149			
Ethylbenzene	4.92	ug/L	0.50	98	72	130			
Methyl tert-butyl ether (MTBE)	3.71	ug/L	0.50	74	72	120			
Methyl ethyl ketone	45.2	ug/L	20	90	45	130			
Methyl isobutyl ketone	49.2	ug/L	20	98	58	135			
Methylene chloride	5.64	ug/L	0.50	113	66	142			
Naphthalene	5.44	ug/L	0.50	109	69	124			
Styrene	4.84	ug/L	0.50	97	80	124			
Tetrachloroethene	4.68	ug/L	0.50	94	72	131			
1,1,1,2-Tetrachloroethane	4.16	ug/L	0.50	83	78	124			
1,1,2,2-Tetrachloroethane	4.72	ug/L	0.50	94	68	137			
Toluene	5.16	ug/L	0.50	103	72	135			
Trichloroethene	4.80	ug/L	0.50	96	85	126			
1,1,1-Trichloroethane	3.73	ug/L	0.50	75	63	120			
1,1,2-Trichloroethane	4.68	ug/L	0.50	94	78	124			
Trichlorofluoromethane	3.30	ug/L	0.50	66	72	120			S
1,2,3-Trichloropropane	4.04	ug/L	0.50	81	64	138			
Vinyl Acetate	4.08	ug/L	1.0	82	31	124			
Vinyl chloride	5.12	ug/L	0.50	102	58	140			
m+p-Xylenes	9.84	ug/L	0.50	98	67	139			
o-Xylene	4.84	ug/L	0.50	97	74	135			
Xylenes, Total	14.7	ug/L	0.50	98	70	137			
Surr: 1,2-Dichloroethane-d4			0.50	72	71	139			
Surr: p-Bromofluorobenzene			0.50	87	80	127			
Surr: Toluene-d8			0.50	92	80	123			
Lab ID: blk022417	Method Blank				Run: 5971A.L_170224A		02/24/17 11:30		
Acetone	ND	ug/L		20					
Acetonitrile	ND	ug/L		20					

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.



QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc

Report Date: 03/02/17

Project: 170217005 LFH-1 CO-0121724

Work Order: C17020566

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E624							Batch: R275391		
Lab ID: blk022417	Method Blank		Run: 5971A.L_170224A				02/24/17 11:30		
Acrolein	ND	ug/L		20					
Acrylonitrile	ND	ug/L		3.0					
Benzene	ND	ug/L		0.50					
Bromobenzene	ND	ug/L		0.50					
Bromochloromethane	ND	ug/L		0.50					
Bromodichloromethane	ND	ug/L		0.50					
Bromoform	ND	ug/L		0.50					
Bromomethane	ND	ug/L		0.50					
Carbon disulfide	ND	ug/L		0.50					
Carbon tetrachloride	ND	ug/L		0.50					
Chlorobenzene	ND	ug/L		0.50					
Chlorodibromomethane	ND	ug/L		0.50					
Chloroethane	ND	ug/L		0.50					
2-Chloroethyl vinyl ether	ND	ug/L		1.0					
Chloroform	ND	ug/L		0.50					
Chloromethane	ND	ug/L		0.50					
2-Chlorotoluene	ND	ug/L		0.50					
4-Chlorotoluene	ND	ug/L		0.50					
1,2-Dibromoethane	ND	ug/L		0.50					
Dibromomethane	ND	ug/L		0.50					
1,2-Dichlorobenzene	ND	ug/L		0.50					
1,3-Dichlorobenzene	ND	ug/L		0.50					
1,4-Dichlorobenzene	ND	ug/L		0.50					
Dichlorodifluoromethane	ND	ug/L		0.50					
1,1-Dichloroethane	ND	ug/L		0.50					
1,2-Dichloroethane	ND	ug/L		0.50					
1,1-Dichloroethene	ND	ug/L		0.50					
cis-1,2-Dichloroethene	ND	ug/L		0.50					
trans-1,2-Dichloroethene	ND	ug/L		0.50					
1,2-Dichloropropane	ND	ug/L		0.50					
1,3-Dichloropropane	ND	ug/L		0.50					
2,2-Dichloropropane	ND	ug/L		0.50					
1,1-Dichloropropene	ND	ug/L		0.50					
cis-1,3-Dichloropropene	ND	ug/L		0.30					
trans-1,3-Dichloropropene	ND	ug/L		0.30					
Ethylbenzene	ND	ug/L		0.50					
Methyl tert-butyl ether (MTBE)	ND	ug/L		0.50					
Methyl ethyl ketone	ND	ug/L		20					
Methyl isobutyl ketone	ND	ug/L		20					
Methylene chloride	ND	ug/L		0.50					
Naphthalene	ND	ug/L		0.50					
Styrene	ND	ug/L		0.50					
Tetrachloroethene	ND	ug/L		0.50					

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc
Project: 170217005 LFH-1 CO-0121724

Report Date: 03/02/17
Work Order: C17020566

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
Method: E624 Batch: R275391										
Lab ID: blk022417	Method Blank		Run: 5971A.I_170224A				02/24/17 11:30			
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50							
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50							
Toluene	ND	ug/L	0.50							
Trichloroethene	ND	ug/L	0.50							
1,1,1-Trichloroethane	ND	ug/L	0.50							
1,1,2-Trichloroethane	ND	ug/L	0.50							
Trichlorofluoromethane	ND	ug/L	0.50							
1,2,3-Trichloropropane	ND	ug/L	0.50							
Vinyl Acetate	ND	ug/L	1.0							
Vinyl chloride	ND	ug/L	0.40							
m+p-Xylenes	ND	ug/L	0.50							
o-Xylene	ND	ug/L	0.50							
Xylenes, Total	ND	ug/L	0.50							
Surr: 1,2-Dichloroethane-d4			0.50	74	71	139				
Surr: p-Bromofluorobenzene			0.50	90	80	127				
Surr: Toluene-d8			0.50	94	80	123				
Lab ID: b17021110-001bms Sample Matrix Spike Run: 5971A.I_170224A 02/24/17 20:47										
Acrolein	ND	ug/L	20	0	16	233			S 1	
Acrylonitrile	48.8	ug/L	20	98	76	127				
2-Chloroethyl vinyl ether	3.44	ug/L	1.0	69	36	144				
Surr: 1,2-Dichloroethane-d4			0.50	80	71	139				
Surr: p-Bromofluorobenzene			0.50	95	80	127				
Surr: Toluene-d8			0.50	100	80	123				
- 1 = This is a known very reactive compound. The recovery of this compound was normal in the Laboratory Control Sample (LCS). The compound appears to have reacted with the sample matrix.										
Lab ID: b17021110-001bmsd Sample Matrix Spike Duplicate Run: 5971A.I_170224A 02/24/17 21:16										
Acrolein	ND	ug/L	20	0	16	233			20 S 1	
Acrylonitrile	48.8	ug/L	20	98	76	127	0.0	20		
2-Chloroethyl vinyl ether	3.66	ug/L	1.0	73	36	144	6.1	20		
Surr: 1,2-Dichloroethane-d4			0.50	81	71	139				
Surr: p-Bromofluorobenzene			0.50	96	80	127				
Surr: Toluene-d8			0.50	99	80	123				
- 1 = This is a known very reactive compound. The recovery of this compound was normal in the Laboratory Control Sample (LCS). The compound appears to have reacted with the sample matrix.										
Lab ID: b17021110-001bms Sample Matrix Spike Run: 5971A.I_170224A 02/24/17 18:21										
Acetone	40.4	ug/L	20	81	55	144				
Acetonitrile	66.0	ug/L	20	132	54	142				
Benzene	4.60	ug/L	0.50	92	73	122				
Bromobenzene	4.60	ug/L	0.50	92	74	129				
Bromochloromethane	4.56	ug/L	0.50	91	66	120				
Bromodichloromethane	4.36	ug/L	0.50	87	74	128				
Bromoform	4.40	ug/L	0.50	88	66	128				
Bromomethane	5.88	ug/L	0.50	118	51	123				

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.



QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc
Project: 170217005 LFH-1 CO-0121724

Report Date: 03/02/17
Work Order: C17020566

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E624							Batch: R275391		
Lab ID: b17021110-001bms	Sample Matrix Spike		Run: 5971A.I_170224A				02/24/17 18:21		
Carbon disulfide	5.12	ug/L	0.50	102	46	145			
Carbon tetrachloride	3.59	ug/L	0.50	72	75	125			S
Chlorobenzene	4.52	ug/L	0.50	90	80	123			
Chlorodibromomethane	4.52	ug/L	0.50	90	74	125			
Chloroethane	5.40	ug/L	0.50	108	59	142			
Chloroform	4.68	ug/L	0.50	82	68	124			
Chloromethane	4.64	ug/L	0.50	93	53	146			
2-Chlorotoluene	4.88	ug/L	0.50	98	75	131			
4-Chlorotoluene	4.68	ug/L	0.50	94	74	129			
1,2-Dibromoethane	4.16	ug/L	0.50	83	76	124			
Dibromomethane	4.64	ug/L	0.50	93	77	125			
1,2-Dichlorobenzene	4.64	ug/L	0.50	93	74	124			
1,3-Dichlorobenzene	4.88	ug/L	0.50	98	77	122			
1,4-Dichlorobenzene	4.76	ug/L	0.50	91	76	126			
Dichlorodifluoromethane	4.32	ug/L	0.50	86	56	146			
1,1-Dichloroethane	4.24	ug/L	0.50	85	74	133			
1,2-Dichloroethane	3.48	ug/L	0.50	70	75	129			S
1,1-Dichloroethene	4.12	ug/L	0.50	82	74	132			
cis-1,2-Dichloroethene	4.48	ug/L	0.50	90	81	122			
trans-1,2-Dichloroethene	4.64	ug/L	0.50	93	79	143			
1,2-Dichloropropane	4.92	ug/L	0.50	98	75	126			
1,3-Dichloropropane	4.24	ug/L	0.50	85	71	136			
2,2-Dichloropropane	3.60	ug/L	0.50	72	68	142			
1,1-Dichloropropene	4.04	ug/L	0.50	81	70	131			
cis-1,3-Dichloropropene	4.08	ug/L	0.50	82	74	135			
trans-1,3-Dichloropropene	3.97	ug/L	0.50	79	76	149			
Ethylbenzene	4.64	ug/L	0.50	93	72	130			
Methyl tert-butyl ether (MTBE)	3.63	ug/L	0.50	73	72	120			
Methyl ethyl ketone	44.4	ug/L	20	89	45	130			
Methyl isobutyl ketone	51.2	ug/L	20	102	58	135			
Methylene chloride	5.44	ug/L	0.50	109	66	142			
Naphthalene	4.84	ug/L	0.50	97	69	124			
Styrene	4.56	ug/L	0.50	91	80	124			
Tetrachloroethene	4.44	ug/L	0.50	89	72	131			
1,1,1,2-Tetrachloroethane	3.95	ug/L	0.50	79	78	124			
1,1,2,2-Tetrachloroethane	4.88	ug/L	0.50	98	68	137			
Toluene	4.88	ug/L	0.50	98	72	135			
Trichloroethene	4.56	ug/L	0.50	91	85	126			
1,1,1-Trichloroethane	3.51	ug/L	0.50	70	63	120			
1,1,2-Trichloroethane	4.52	ug/L	0.50	90	78	124			
Trichlorofluoromethane	3.29	ug/L	0.50	66	72	120			S
1,2,3-Trichloropropane	3.90	ug/L	0.50	78	64	138			
Vinyl Acetate	4.00	ug/L	1.0	80	31	124			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.



QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc
Project: 170217005 LFH-1 CO-0121724

Report Date: 03/02/17
Work Order: C17020566

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E624							Batch: R275391		
Lab ID: b17021110-001bms	Sample Matrix Spike			Run: 5971A.I_170224A			02/24/17 18:21		
Vinyl chloride	5.12	ug/L	0.50	102	58	140			
m+p-Xylenes	9.32	ug/L	0.50	93	67	139			
o-Xylene	4.44	ug/L	0.50	89	74	135			
Xylenes, Total	13.8	ug/L	0.50	92	70	137			
Surr: 1,2-Dichloroethane-d4			0.50	80	71	139			
Surr: p-Bromofluorobenzene			0.50	94	80	127			
Surr: Toluene-d8			0.50	101	80	123			
Lab ID: b17021110-001bmsd	Sample Matrix Spike Duplicate			Run: 5971A.I_170224A			02/24/17 18:50		
Acetone	44.0	ug/L	20	88	55	144	8.5	20	
Acetonitrile	65.6	ug/L	20	131	54	142	0.6	20	
Benzene	5.04	ug/L	0.50	101	73	122	9.1	20	
Bromobenzene	4.96	ug/L	0.50	99	74	129	7.5	20	
Bromochloromethane	4.80	ug/L	0.50	96	68	120	5.1	20	
Bromodichloromethane	4.60	ug/L	0.50	92	74	128	5.4	20	
Bromoform	4.80	ug/L	0.50	96	66	128	8.7	20	
Bromomethane	6.00	ug/L	0.50	120	51	123	2.0	20	
Carbon disulfide	5.20	ug/L	0.50	104	46	145	1.6	20	
Carbon tetrachloride	3.97	ug/L	0.50	79	75	125	10	20	
Chlorobenzene	4.88	ug/L	0.50	98	80	123	7.7	20	
Chlorodibromomethane	4.76	ug/L	0.50	95	74	125	5.2	20	
Chloroethane	5.32	ug/L	0.50	106	59	142	1.5	20	
Chloroform	4.96	ug/L	0.50	87	68	124	5.8	20	
Chloromethane	4.88	ug/L	0.50	98	53	146	5.0	20	
2-Chlorotoluene	5.20	ug/L	0.50	104	75	131	6.3	20	
4-Chlorotoluene	5.04	ug/L	0.50	101	74	129	7.4	20	
1,2-Dibromoethane	4.52	ug/L	0.50	90	76	124	8.3	20	
Dibromomethane	4.88	ug/L	0.50	98	77	125	5.0	20	
1,2-Dichlorobenzene	5.04	ug/L	0.50	101	74	124	8.3	20	
1,3-Dichlorobenzene	5.20	ug/L	0.50	104	77	122	6.3	20	
1,4-Dichlorobenzene	5.12	ug/L	0.50	98	76	126	7.3	20	
Dichlorodifluoromethane	4.36	ug/L	0.50	87	56	146	0.9	20	
1,1-Dichloroethane	4.68	ug/L	0.50	94	74	133	9.9	20	
1,2-Dichloroethane	3.76	ug/L	0.50	75	75	129	7.8	20	
1,1-Dichloroethene	4.44	ug/L	0.50	89	74	132	7.5	20	
cis-1,2-Dichloroethene	4.88	ug/L	0.50	98	81	122	8.5	20	
trans-1,2-Dichloroethene	5.12	ug/L	0.50	102	79	143	9.8	20	
1,2-Dichloropropane	5.24	ug/L	0.50	105	75	126	6.3	20	
1,3-Dichloropropane	4.64	ug/L	0.50	93	71	136	9.0	20	
2,2-Dichloropropane	3.96	ug/L	0.50	79	68	142	9.6	20	
1,1-Dichloropropene	4.44	ug/L	0.50	89	70	131	9.4	20	
cis-1,3-Dichloropropene	4.40	ug/L	0.50	88	74	135	7.5	20	
trans-1,3-Dichloropropene	4.24	ug/L	0.50	85	76	149	6.6	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc
Project: 170217005 LFH-1 CO-0121724

Report Date: 03/02/17
Work Order: C17020566

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E624							Batch: R275391		
Lab ID: b17021110-001bmsd	Sample Matrix Spike Duplicate			Run: 5971A.L_170224A			02/24/17 18:50		
Ethylbenzene	5.00	ug/L	0.50	100	72	130	7.5	20	
Methyl tert-butyl ether (MTBE)	3.83	ug/L	0.50	77	72	120	5.5	20	
Methyl ethyl ketone	46.0	ug/L	20	92	45	130	3.5	20	
Methyl isobutyl ketone	51.2	ug/L	20	102	58	135	0.0	20	
Methylene chloride	5.72	ug/L	0.50	114	66	142	5.0	20	
Naphthalene	5.56	ug/L	0.50	111	69	124	14	20	
Styrene	4.84	ug/L	0.50	97	80	124	6.0	20	
Tetrachloroethene	4.72	ug/L	0.50	94	72	131	6.1	20	
1,1,1,2-Tetrachloroethane	4.20	ug/L	0.50	84	78	124	6.1	20	
1,1,2,2-Tetrachloroethane	5.20	ug/L	0.50	104	68	137	6.3	20	
Toluene	5.12	ug/L	0.50	102	72	135	4.8	20	
Trichloroethene	4.80	ug/L	0.50	96	85	126	5.1	20	
1,1,1-Trichloroethane	3.94	ug/L	0.50	79	63	120	12	20	
1,1,2-Trichloroethane	4.76	ug/L	0.50	95	78	124	5.2	20	
Trichlorofluoromethane	3.36	ug/L	0.50	67	72	120	2.3	20	S
1,2,3-Trichloropropane	4.20	ug/L	0.50	84	64	138	7.4	20	
Vinyl Acetate	4.20	ug/L	1.0	84	31	124	4.9	20	
Vinyl chloride	5.08	ug/L	0.50	102	58	140	0.8	20	
m+p-Xylenes	9.92	ug/L	0.50	99	67	139	6.2	20	
o-Xylene	4.80	ug/L	0.50	96	74	135	7.8	20	
Xylenes, Total	14.7	ug/L	0.50	98	70	137			
Surr: 1,2-Dichloroethane-d4			0.50	81	71	139			
Surr: p-Bromofluorobenzene			0.50	94	80	127			
Surr: Toluene-d8			0.50	100	80	123			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.



QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc

Report Date: 03/02/17

Project: 170217005 LFH-1 CO-0121724

Work Order: C17020566

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E625									Batch: 107004
Lab ID: MB-107004	Method Blank						Run: SV5973N2.I_170227B		02/27/17 18:24
Acenaphthene	ND	ug/L							10
Acenaphthylene	ND	ug/L							10
Anthracene	ND	ug/L							10
Azobenzene	ND	ug/L							10
Benzo(a)anthracene	ND	ug/L							10
Benzo(a)pyrene	ND	ug/L							10
Benzo(b)fluoranthene	ND	ug/L							10
Benzo(g,h,i)perylene	ND	ug/L							10
Benzo(k)fluoranthene	ND	ug/L							10
4-Bromophenyl phenyl ether	ND	ug/L							10
Butylbenzylphthalate	ND	ug/L							10
4-Chloro-3-methylphenol	ND	ug/L							10
bis(-2-chloroethoxy)Methane	ND	ug/L							10
bis(-2-chloroethyl)Ether	ND	ug/L							10
bis(2-chloroisopropyl)Ether	ND	ug/L							10
2-Chloronaphthalene	ND	ug/L							10
2-Chlorophenol	ND	ug/L							10
4-Chlorophenyl phenyl ether	ND	ug/L							10
Chrysene	ND	ug/L							10
Diethyl phthalate	ND	ug/L							10
Di-n-butyl phthalate	ND	ug/L							10
1,2-Dichlorobenzene	ND	ug/L							10
1,3-Dichlorobenzene	ND	ug/L							10
1,4-Dichlorobenzene	ND	ug/L							10
3,3'-Dichlorobenzidine	ND	ug/L							10
2,4-Dichlorophenol	ND	ug/L							10
Dimethyl phthalate	ND	ug/L							10
Di-n-octyl phthalate	ND	ug/L							10
Dibenzo(a,h)anthracene	ND	ug/L							10
2,4-Dimethylphenol	ND	ug/L							10
4,6-Dinitro-2-methylphenol	ND	ug/L							50
2,4-Dinitrophenol	ND	ug/L							50
2,4-Dinitrotoluene	ND	ug/L							10
2,6-Dinitrotoluene	ND	ug/L							10
bis(2-ethylhexyl)Phthalate	ND	ug/L							10
Fluoranthene	ND	ug/L							10
Fluorene	ND	ug/L							10
Hexachlorobenzene	ND	ug/L							10
Hexachlorobutadiene	ND	ug/L							10
Hexachlorocyclopentadiene	ND	ug/L							10
Hexachloroethane	ND	ug/L							10
Indeno(1,2,3-cd)pyrene	ND	ug/L							10
Isophorone	ND	ug/L							10

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc
Project: 170217005 LFH-1 CO-0121724

Report Date: 03/02/17
Work Order: C17020566

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E625							Batch: 107004		
Lab ID: MB-107004	Method Blank		Run: SV5973N2.I_170227B				02/27/17 18:24		
n-Nitrosodimethylamine	ND	ug/L	10						
n-Nitroso-di-n-propylamine	ND	ug/L	10						
n-Nitrosodiphenylamine	ND	ug/L	10						
2-Nitrophenol	ND	ug/L	10						
4-Nitrophenol	ND	ug/L	50						
Naphthalene	ND	ug/L	10						
Nitrobenzene	ND	ug/L	10						
Pentachlorophenol	ND	ug/L	50						
Phenanthrene	ND	ug/L	10						
Phenol	ND	ug/L	10						
Pyrene	ND	ug/L	10						
1,2,4-Trichlorobenzene	ND	ug/L	10						
2,4,6-Trichlorophenol	ND	ug/L	10						
Surr: 2-Fluorobiphenyl			10	55	28	107			
Surr: 2-Fluorophenol			10	36	20	56			
Surr: Nitrobenzene-d5			10	58	32	94			
Surr: Phenol-d5			10	35	19	45			
Surr: Terphenyl-d14			10	77	32	122			
Surr: 2,4,6-Tribromophenol			10	58	21	130			
Lab ID: LCS-107004	Laboratory Control Sample		Run: SV5973N2.I_170227B				02/27/17 18:55		
Acenaphthene	81.2	ug/L	10	81	58	99			
Acenaphthylene	76.5	ug/L	10	77	57	96			
Anthracene	79.5	ug/L	10	80	60	107			
Azobenzene	79.3	ug/L	10	79	56	100			
Benzo(a)anthracene	84.1	ug/L	10	84	62	114			
Benzo(a)pyrene	80.1	ug/L	10	80	62	108			
Benzo(b)fluoranthene	88.6	ug/L	10	89	48	127			
Benzo(g,h,i)perylene	81.6	ug/L	10	82	82	121			
Benzo(k)fluoranthene	79.2	ug/L	10	79	55	111			
4-Bromophenyl phenyl ether	83.0	ug/L	10	83	58	105			
Butylbenzylphthalate	91.6	ug/L	10	92	60	113			
4-Chloro-3-methylphenol	65.7	ug/L	10	66	53	92			
bis(-2-chloroethoxy)Methane	73.9	ug/L	10	74	50	92			
bis(-2-chloroethyl)Ether	63.4	ug/L	10	63	44	82			
bis(2-chloroisopropyl)Ether	61.2	ug/L	10	61	56	87			
2-Chloronaphthalene	74.9	ug/L	10	75	56	95			
2-Chlorophenol	60.1	ug/L	10	60	47	76			
4-Chlorophenyl phenyl ether	75.8	ug/L	10	76	58	99			
Chrysene	81.9	ug/L	10	82	63	106			
Diethyl phthalate	78.6	ug/L	10	79	58	103			
Di-n-butyl phthalate	87.6	ug/L	10	88	61	110			
1,2-Dichlorobenzene	81.5	ug/L	10	82	43	81			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc

Report Date: 03/02/17

Project: 170217005 LFH-1 CO-0121724

Work Order: C17020566

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E625							Batch: 107004		
Lab ID: LCS-107004	Laboratory Control Sample			Run: SV5973N2.I_170227B			02/27/17 18:55		
1,3-Dichlorobenzene	60.2	ug/L	10	60	41	79			
1,4-Dichlorobenzene	61.4	ug/L	10	61	42	79			
3,3'-Dichlorobenzidine	66.6	ug/L	10	69	51	93			
2,4-Dichlorophenol	64.7	ug/L	10	65	49	90			
Dimethyl phthalate	76.4	ug/L	10	76	58	104			
Di-n-octyl phthalate	88.3	ug/L	10	88	56	110			
Dibenzo(a,h)anthracene	80.4	ug/L	10	80	61	111			
2,4-Dimethylphenol	61.8	ug/L	10	62	45	89			
4,6-Dinitro-2-methylphenol	48.2	ug/L	50	48	37	105			
2,4-Dinitrophenol	39.7	ug/L	50	40	27	81			
2,4-Dinitrotoluene	87.7	ug/L	10	88	63	110			
2,6-Dinitrotoluene	75.5	ug/L	10	76	60	107			
bis(2-ethylhexyl)Phthalate	88.6	ug/L	10	89	56	108			
Fluoranthene	63.8	ug/L	10	84	63	110			
Fluorene	77.4	ug/L	10	77	60	99			
Hexachlorobenzene	76.2	ug/L	10	78	57	103			
Hexachlorobutadiene	67.5	ug/L	10	67	39	83			
Hexachlorocyclopentadiene	68.4	ug/L	10	68	39	91			
Hexachloroethane	59.6	ug/L	10	60	37	75			
Indeno(1,2,3-cd)pyrene	82.0	ug/L	10	82	59	109			
Isophorone	67.1	ug/L	10	67	42	102			
n-Nitrosodimethylamine	36.9	ug/L	10	37	20	45			
n-Nitroso-di-n-propylamine	71.5	ug/L	10	71	49	98			
n-Nitrosodiphenylamine	90.0	ug/L	10	90	61	108			
2-Nitrophenol	68.0	ug/L	10	68	51	96			
4-Nitrophenol	16.3	ug/L	50	18	15	36			
Naphthalene	71.6	ug/L	10	72	48	96			
Nitrobenzene	65.0	ug/L	10	65	51	91			
Pentachlorophenol	70.6	ug/L	50	71	53	109			
Phenanthrene	80.5	ug/L	10	81	58	104			
Phenol	35.4	ug/L	10	35	27	45			
Pyrene	89.3	ug/L	10	89	64	108			
1,2,4-Trichlorobenzene	67.3	ug/L	10	67	49	85			
2,4,6-Trichlorophenol	64.9	ug/L	10	65	47	99			
Surr: 2-Fluorobiphenyl			10	63	28	107			
Surr: 2-Fluorophenol			10	35	20	56			
Surr: Nitrobenzene-d5			10	68	32	94			
Surr: Phenol-d5			10	42	19	45			
Surr: Terphenyl-d14			10	87	32	122			
Surr: 2,4,6-Tribromophenol			10	70	21	130			
Lab ID: B17021688-001CMS	Sample Matrix Spike			Run: SV5973N2.I_170227B			02/27/17 20:29		
Acenaphthene	86.4	ug/L	10	86	58	99			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc
Project: 170217005 LFH-1 CO-0121724

Report Date: 03/02/17
Work Order: C17020566

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E625							Batch: 107004		
Lab ID: B17021688-001CMS	Sample Matrix Spike			Run: SV5973N2.I_170227B			02/27/17 20:29		
Acenaphthylene	83.0	ug/L	10	83	57	96			
Anthracene	86.4	ug/L	10	86	60	107			
Azobenzene	84.3	ug/L	10	84	56	100			
Benzo(a)anthracene	90.3	ug/L	10	90	62	114			
Benzo(a)pyrene	80.9	ug/L	10	81	62	108			
Benzo(b)fluoranthene	80.4	ug/L	10	80	48	127			
Benzo(g,h,i)perylene	80.5	ug/L	10	81	62	121			
Benzo(k)fluoranthene	83.5	ug/L	10	83	55	111			
4-Bromophenyl phenyl ether	80.4	ug/L	10	80	58	105			
Butylbenzylphthalate	99.7	ug/L	10	100	60	113			
4-Chloro-3-methylphenol	77.0	ug/L	10	77	53	92			
bis(-2-chloroethoxy)Methane	77.3	ug/L	10	77	50	92			
bis(-2-chloroethyl)Ether	66.7	ug/L	10	67	44	82			
bis(2-chloroisopropyl)Ether	66.6	ug/L	10	67	56	87			
2-Chloronaphthalene	79.8	ug/L	10	80	56	95			
2-Chlorophenol	64.1	ug/L	10	64	47	76			
4-Chlorophenyl phenyl ether	84.5	ug/L	10	85	58	99			
Chrysene	85.9	ug/L	10	86	63	106			
Diethyl phthalate	85.4	ug/L	10	85	58	103			
Di-n-butyl phthalate	96.0	ug/L	10	96	61	110			
1,2-Dichlorobenzene	66.1	ug/L	10	66	43	81			
1,3-Dichlorobenzene	61.9	ug/L	10	62	41	79			
1,4-Dichlorobenzene	61.8	ug/L	10	62	42	79			
3,3'-Dichlorobenzidine	69.1	ug/L	10	69	51	93			
2,4-Dichlorophenol	68.4	ug/L	10	68	49	90			
Dimethyl phthalate	81.4	ug/L	10	81	58	104			
Di-n-octyl phthalate	90.6	ug/L	10	91	56	110			
Dibenzo(a,h)anthracene	80.0	ug/L	10	80	61	111			
2,4-Dimethylphenol	69.2	ug/L	10	69	45	87			
4,6-Dinitro-2-methylphenol	58.9	ug/L	50	59	37	105			
2,4-Dinitrophenol	54.8	ug/L	50	55	27	81			
2,4-Dinitrotoluene	82.5	ug/L	10	83	63	110			
2,6-Dinitrotoluene	80.8	ug/L	10	81	60	107			
bis(2-ethylhexyl)Phthalate	92.0	ug/L	10	92	56	108			
Fluoranthene	88.0	ug/L	10	88	63	110			
Fluorene	80.1	ug/L	10	80	60	99			
Hexachlorobenzene	82.5	ug/L	10	83	57	103			
Hexachlorobutadiene	69.0	ug/L	10	69	39	83			
Hexachlorocyclopentadiene	68.1	ug/L	10	68	39	91			
Hexachloroethane	65.6	ug/L	10	66	37	75			
Indeno(1,2,3-cd)pyrene	82.3	ug/L	10	82	59	109			
Isophorone	71.3	ug/L	10	71	42	102			
n-Nitrosodimethylamine	41.5	ug/L	10	41	20	45			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc

Report Date: 03/02/17

Project: 170217005 LFH-1 CO-0121724

Work Order: C17020566

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E625							Batch: 107004		
Lab ID: B17021688-001CMS	Sample Matrix Spike						Run: SV5973N2.I_170227B	02/27/17 20:29	
n-Nitroso-di-n-propylamine	76.9	ug/L	10	77	49	98			
n-Nitrosodiphenylamine	93.7	ug/L	10	94	61	108			
2-Nitrophenol	69.9	ug/L	10	70	51	96			
4-Nitrophenol	24.6	ug/L	50	25	15	36			
Naphthalene	76.0	ug/L	10	76	48	96			
Nitrobenzene	72.5	ug/L	10	73	51	91			
Pentachlorophenol	89.2	ug/L	50	89	53	109			
Phenanthrene	85.1	ug/L	10	85	58	104			
Phenol	36.7	ug/L	10	37	27	45			
Pyrene	88.8	ug/L	10	90	64	108			
1,2,4-Trichlorobenzene	70.9	ug/L	10	71	49	85			
2,4,6-Trichlorophenol	67.7	ug/L	10	68	47	99			
Surr: 2-Fluorobiphenyl			10	62	28	107			
Surr: 2-Fluorophenol			10	39	20	56			
Surr: Nitrobenzene-d5			10	72	32	94			
Surr: Phenol-d5			10	35	19	45			
Surr: Terphenyl-d14			10	87	32	122			
Surr: 2,4,6-Tribromophenol			10	75	21	130			
Lab ID: B17021688-003CMS							02/27/17 21:31		
Sample Matrix Spike						Run: SV5973N2.I_170227B			
Acenaphthene	89.8	ug/L	10	90	58	99			
Acenaphthylene	82.2	ug/L	10	82	57	96			
Anthracene	73.2	ug/L	10	73	60	107			
Azobenzene	80.2	ug/L	10	80	56	100			
Benzo(a)anthracene	85.1	ug/L	10	85	62	114			
Benzo(a)pyrene	77.0	ug/L	10	77	62	108			
Benzo(b)fluoranthene	73.3	ug/L	10	73	48	127			
Benzo(g,h,i)perylene	78.5	ug/L	10	79	62	121			
Benzo(k)fluoranthene	83.1	ug/L	10	83	55	111			
4-Bromophenyl phenyl ether	78.1	ug/L	10	78	58	105			
Butylbenzylphthalate	92.9	ug/L	10	93	60	113			
4-Chloro-3-methylphenol	69.5	ug/L	10	69	53	92			
bis(-2-chloroethoxy)Methane	69.6	ug/L	10	70	50	92			
bis(-2-chloroethyl)Ether	58.4	ug/L	10	58	44	82			
bis(2-chloroisopropyl)Ether	57.7	ug/L	10	58	56	87			
2-Chloronaphthalene	77.7	ug/L	10	78	56	95			
2-Chlorophenol	56.6	ug/L	10	57	47	76			
4-Chlorophenyl phenyl ether	82.9	ug/L	10	83	58	99			
Chrysene	82.0	ug/L	10	82	63	106			
Diethyl phthalate	80.2	ug/L	10	80	58	103			
Di-n-butyl phthalate	86.9	ug/L	10	87	61	110			
1,2-Dichlorobenzene	61.5	ug/L	10	62	43	81			
1,3-Dichlorobenzene	59.3	ug/L	10	59	41	79			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc
Project: 170217005 LFH-1 CO-0121724

Report Date: 03/02/17
Work Order: C17020566

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E625							Batch: 107004		
Lab ID: B17021688-003CMS	Sample Matrix Spike		Run: SV5973N2.I_170227B				02/27/17 21:31		
1,4-Dichlorobenzene	57.9	ug/L	10	58	42	79			
3,3'-Dichlorobenzidine	52.9	ug/L	10	53	51	93			
2,4-Dichlorophenol	61.5	ug/L	10	62	49	90			
Dimethyl phthalate	74.3	ug/L	10	74	58	104			
Di-n-octyl phthalate	82.5	ug/L	10	83	56	110			
Dibenzo(a,h)anthracene	75.9	ug/L	10	76	61	111			
2,4-Dimethylphenol	60.0	ug/L	10	60	45	87			
4,6-Dinitro-2-methylphenol	41.6	ug/L	50	42	37	105			
2,4-Dinitrophenol	30.1	ug/L	50	30	27	81			
2,4-Dinitrotoluene	86.9	ug/L	10	87	63	110			
2,6-Dinitrotoluene	75.9	ug/L	10	76	60	107			
bis(2-ethylhexyl)Phthalate	81.5	ug/L	10	82	56	108			
Fluoranthene	82.0	ug/L	10	82	63	110			
Fluorene	81.9	ug/L	10	82	60	99			
Hexachlorobenzene	75.8	ug/L	10	76	57	103			
Hexachlorobutadiene	69.3	ug/L	10	69	39	83			
Hexachlorocyclopentadiene	69.5	ug/L	10	70	39	91			
Hexachloroethane	57.7	ug/L	10	58	37	75			
Indeno(1,2,3-cd)pyrene	73.4	ug/L	10	73	59	109			
Isophorone	68.4	ug/L	10	68	42	102			
n-Nitrosodimethylamine	27.8	ug/L	10	28	20	45			
n-Nitroso-di-n-propylamine	68.7	ug/L	10	69	49	98			
n-Nitrosodiphenylamine	84.0	ug/L	10	84	61	108			
2-Nitrophenol	61.8	ug/L	10	62	51	96			
4-Nitrophenol	27.7	ug/L	50	28	15	36			
Naphthalene	72.4	ug/L	10	72	48	96			
Nitrobenzene	69.7	ug/L	10	70	51	91			
Pentachlorophenol	66.8	ug/L	50	67	53	109			
Phenanthrene	79.7	ug/L	10	80	58	104			
Phenol	33.9	ug/L	10	34	27	45			
Pyrene	81.2	ug/L	10	81	64	108			
1,2,4-Trichlorobenzene	71.3	ug/L	10	71	49	85			
2,4,6-Trichlorophenol	63.8	ug/L	10	64	47	99			
Surr: 2-Fluorobiphenyl			10	45	28	107			
Surr: 2-Fluorophenol			10	37	20	56			
Surr: Nitrobenzene-d5			10	62	32	94			
Surr: Phenol-d5			10	31	19	45			
Surr: Terphenyl-d14			10	64	32	122			
Surr: 2,4,6-Tribromophenol			10	55	21	130			
Lab ID: MB-107004	Method Blank		Run: SV5973N2.I_170228A				02/28/17 12:11		
Benzidine	ND	ug/L	10						

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc

Report Date: 03/02/17

Project: 170217005 LFH-1 CO-0121724

Work Order: C17020566

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E625									Batch: 107004
Lab ID: LCS-107004	Laboratory Control Sample								Run: SV5973N2.I_170228A 02/28/17 12:42
Benzidine	63.4	ug/L	10	63	10	100			
Lab ID: B17021688-001CMS	Sample Matrix Spike								Run: SV5973N2.I_170228A 02/28/17 14:16
Benzidine	25.8	ug/L	20	26	10	100			
Lab ID: B17021688-003CMS	Sample Matrix Spike								Run: SV5973N2.I_170228A 02/28/17 15:18
Benzidine	28.5	ug/L	20	28	10	100			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc

Report Date: 03/02/17

Project: 170217005 LFH-1 CO-0121724

Work Order: C17020566

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E625							Analytical Run: R275528		
Lab ID: 27-Feb-17_CCV_2	Continuing Calibration Verification Standard						02/27/17 15:18		
Acenaphthene	75.7	ug/L	10	101	80	120			
Acenaphthylene	75.2	ug/L	10	100	80	120			
Anthracene	78.7	ug/L	10	105	80	120			
Azobenzene	79.8	ug/L	10	106	80	120			
Benzo(a)anthracene	78.0	ug/L	10	104	80	120			
Benzo(a)pyrene	78.0	ug/L	10	104	80	120			
Benzo(b)fluoranthene	78.6	ug/L	10	105	80	120			
Benzo(g,h,i)perylene	75.3	ug/L	10	100	80	120			
Benzo(k)fluoranthene	73.2	ug/L	10	98	80	120			
4-Bromophenyl phenyl ether	74.4	ug/L	10	99	80	120			
Butylbenzylphthalate	84.4	ug/L	10	113	80	120			
4-Chloro-3-methylphenol	77.2	ug/L	10	103	80	120			
bis(-2-chloroethoxy)Methane	79.4	ug/L	10	106	80	120			
bis(-2-chloroethyl)Ether	80.8	ug/L	10	108	80	120			
bis(2-chloroisopropyl)Ether	77.8	ug/L	10	104	80	120			
2-Chloronaphthalene	70.3	ug/L	10	94	80	120			
2-Chlorophenol	80.3	ug/L	10	107	80	120			
4-Chlorophenyl phenyl ether	72.9	ug/L	10	97	80	120			
Chrysene	75.0	ug/L	10	100	80	120			
Diethyl phthalate	75.7	ug/L	10	101	80	120			
Di-n-butyl phthalate	81.6	ug/L	10	109	80	120			
1,2-Dichlorobenzene	72.7	ug/L	10	97	80	120			
1,3-Dichlorobenzene	77.8	ug/L	10	104	80	120			
1,4-Dichlorobenzene	74.9	ug/L	10	100	80	120			
3,3'-Dichlorobenzidine	75.8	ug/L	10	101	80	120			
2,4-Dichlorophenol	74.8	ug/L	10	100	80	120			
Dimethyl phthalate	75.3	ug/L	10	100	80	120			
Di-n-octyl phthalate	83.5	ug/L	10	111	80	120			
Dibenzo(a,h)anthracene	74.8	ug/L	10	100	80	120			
2,4-Dimethylphenol	73.0	ug/L	10	97	80	120			
4,6-Dinitro-2-methylphenol	71.3	ug/L	50	95	80	120			
2,4-Dinitrophenol	69.4	ug/L	50	93	80	120			
2,4-Dinitrotoluene	79.4	ug/L	10	106	80	120			
2,6-Dinitrotoluene	78.1	ug/L	10	104	80	120			
bis(2-ethylhexyl)Phthalate	84.4	ug/L	10	112	80	120			
Fluoranthene	76.0	ug/L	10	101	80	120			
Fluorene	77.8	ug/L	10	104	80	120			
Hexachlorobenzene	73.8	ug/L	10	98	80	120			
Hexachlorobutadiene	71.9	ug/L	10	96	80	120			
Hexachlorocyclopentadiene	73.1	ug/L	10	97	80	120			
Hexachloroethane	77.6	ug/L	10	103	80	120			
Indeno(1,2,3-cd)pyrene	75.6	ug/L	10	101	80	120			
Isophorone	78.1	ug/L	10	104	80	120			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc

Report Date: 03/02/17

Project: 170217005 LFH-1 CO-0121724

Work Order: C17020566

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E625							Analytical Run: R275528		
Lab ID: 27-Feb-17_CCV_2	Continuing Calibration Verification Standard						02/27/17 15:18		
n-Nitrosodimethylamine	75.3	ug/L	10	100	80	120			
n-Nitroso-di-n-propylamine	77.8	ug/L	10	104	80	120			
n-Nitrosodiphenylamine	78.9	ug/L	10	105	80	120			
2-Nitrophenol	75.8	ug/L	10	101	80	120			
4-Nitrophenol	69.6	ug/L	50	93	80	120			
Naphthalene	79.8	ug/L	10	106	80	120			
Nitrobenzene	76.8	ug/L	10	102	80	120			
Pentachlorophenol	73.3	ug/L	50	98	80	120			
Phenanthrene	74.0	ug/L	10	99	80	120			
Phenol	79.2	ug/L	10	106	80	120			
Pyrene	75.2	ug/L	10	100	80	120			
1,2,4-Trichlorobenzene	72.8	ug/L	10	97	80	120			
2,4,6-Trichlorophenol	73.6	ug/L	10	98	80	120			
Surr: 2-Fluorobiphenyl			10	100	80	120			
Surr: 2-Fluorophenol			10	113	80	120			
Surr: Nitrobenzene-d5			10	105	80	120			
Surr: Phenol-d5			10	121	80	120			S
Surr: Terphenyl-d14			10	101	80	120			
Surr: 2,4,6-Tribromophenol			10	102	80	120			

Method: E625							Analytical Run: R275577		
Lab ID: 28-Feb-17_CCV_2	Continuing Calibration Verification Standard						02/28/17 11:39		
Benzidine	89.5	ug/L	10	119	80	120			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.



QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc

Project: 170217005 LFH-1 CO-0121724

Report Date: 03/02/17

Work Order: C17020566

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260M									Analytical Run: 107003
Lab ID: CCV-107003	Continuing Calibration Verification Standard								02/27/17 08:30
1,4-Dioxane	105	ug/L	1.0	105	80	120			
Method: SW8260M									Batch: 107003
Lab ID: LCS-107003	Laboratory Control Sample								Run: VOA5973A.I_170227A
1,4-Dioxane	106	ug/L	1.0	106	70	130			02/27/17 09:22
Lab ID: MB-107003	Method Blank								Run: VOA5973A.I_170227A
1,4-Dioxane	ND	ug/L	1.0						02/27/17 09:44
Lab ID: C17020566-001BMS	Sample Matrix Spike								Run: VOA5973A.I_170227A
1,4-Dioxane	200	ug/L	2.0	100	70	130			02/27/17 11:37
Lab ID: C17020566-001BMSD	Sample Matrix Spike Duplicate								Run: VOA5973A.I_170227A
1,4-Dioxane	206	ug/L	2.0	103	70	130	3.0		02/27/17 11:59

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



Work Order Receipt Checklist

Colorado Analytical Laboratories Inc

C17020566

Login completed by: Dorian Quis

Date Received: 2/21/2017

Reviewed by: Kasey Vidick

Received by: dcq

Reviewed Date: 2/21/2017

Carrier name: Ground

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on all shipping container(s)/cooler(s)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on all sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Not Applicable <input type="checkbox"/>
Container/Temp Blank temperature:	6.8°C Blue ice		
Water - VOA vials have zero headspace?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as -dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

Contact and Corrective Action Comments:

None



Colorado Department
of Public Health
and Environment

Inorganic Chemicals Certified Laboratory Report Form
WQCD - Drinking Water CAS
4300 Cherry Creek Drive South, Denver, CO 80246-1530
Fax: (303) 758-1398; cdphe.drinkingwater@state.co.us

Revised 6/13/2014

IOC

Section I (Supplied or Completed by Public Water System)		Section II (Supplied or Completed by Certified Laboratory)	
Public Water System Information		Certified Laboratory Information	
PWSID#: CO0121724		Laboratory ID: CO 0015	
System Name: Sterling Ranch MD		Laboratory Name: Colorado Analytical Laboratory	
Contact Person: Mark Volle		Contact Person: Customer Service Phone: 303-659-2313	
Comments:		Comments:	
Do Samples Need to be Compositied BY THE LAB? <input type="checkbox"/>			

Section III (Supplied or Completed by Public Water System)			
Sample Date: 3/23/17	Collector: Stephanie Schw	Facility ID (On Schedule): New Well	Sample Pt ID (On Schedule): New Well
Section IV Inorganic Chemicals (Completed by Certified Laboratory)			
Lab Receipt Date: 3/24/17	Lab Analysis Date: 3/24/17	Lab Sample ID: 170324007-01	Analyte Name: Fluoride
		CAS No: 7681-49-4	Analytical Method: EPA 300.0
		MCL (mg/L): 4	Lab MRL (mg/L): 0.09
			Result (mg/L): 1.22

NT: Not Tested
 Lab MRL: Laboratory Minimum Reporting Level
 BDL: Below Laboratory MRL. A less than (<) may also used.

mg/L: Milligrams per Liter
 MCL: Maximum Contaminant Level

4/21/17
 170324007-01
 1/1
 N



Brighton Lab
 240 South Main Street
 Brighton, CO 80601

Lakewood Lab
 12860 W. Cedar Dr, Suite 100A
 Lakewood CO 80228

Phone: 303-659-2313
 Fax: 303-659-2315

www.coloradolab.com

Drinking Water Chain of Custody

page 2 of 2

Report To Information		Bill To Information (if different from report to)	
Company Name: <u>JDS-Hydr Consulting</u>	Company Name: <u>SR Water</u>	PWSID: <u>CO 0121724</u>	System Name: <u>Serling Ranch MD</u>
Contact Name: <u>Mark Volle</u>	Contact Name: <u>Jim Morley</u>	Address: <u>20 Boulder Crest</u>	City: <u>CS</u> State: <u>CO</u> Zip: <u>80903</u>
Address: <u>546 E. Pikes Peak Ave</u>	Address: <u>20 Boulder Crest</u>	City: <u>CS</u>	State: <u>CO</u> Zip: <u>80903</u>
Suite: <u>300</u>	City: <u>Colorado</u> State: <u>CO</u> Zip: <u>80903</u>	County: <u>El Paso</u>	
Phone: <u>719-227-0073</u>	Phone: <u>3870-021.com</u>	Compliance Samples: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Fax: <u>3870-021.com</u>	Email: <u>jmorley@sdwr.com</u>	Send Forms to State: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Sampler Name: <u>Soprano Schuster</u>	Sampler Name: <u>Soprano Schuster</u>		

GAL Task No. 170324007 ARF		PHASE I, II, V Drinking Water Analyses (check analysis)															Subcontract Analyses																	
Date	Time	Client Sample ID / EP Code	No. of Containers	Residual Chlorine (mg/L)	P/A Samples Only	Total Coliform P/A	504.1 EDB/D/CP	505 Pests/P/CBS	515.4 Herbicides	525.2 SOC-Pest	531.1 Carbamates	547 Glyphosate	548.1 Endothal	549.2 Diquat	524.2 TTHMs	552.2 HAAs	Lead/Copper	Nitrate	Nitrite	Fluoride	Inorganics	Alk/Lang. Index	(TOD, DOC) (Circle)	SUVA, UV 254 (Circle)	Cyanide	Radium 226	Radium 228	Radon	Uranium					
3-23	8:07	#11	1																															
	8:00 am	#12	1																															
	8:26	#14	3																															
	8:18	#15	2																															
	8:12	#16 (1,4 Dioxane)	3																															
	8:20	#17	2																															
	8:21	#18	2																															
	8:15	#19	3																															
	8:29	#20	3																															

Instructions:

Relinquished By: [Signature] Date/Time: 3-23 11:30am

Received By: [Signature] Date/Time: 3-23 11:30am



Colorado Department
of Public Health
and Environment

Inorganic Chemicals Certified Laboratory Report Form
WQCD - Drinking Water CAS
Submit Online at <http://www.wqcdcompliance.com/login>

Revised 4/13/2015

IOC

Section I (Supplied or Completed by Public Water System)		Section II (Supplied or Completed by Certified Laboratory)	
Public Water System Information		Certified Laboratory Information	
PWSID#: CO0121724		Laboratory ID: CO 0015	
System Name: Sterling Ranch MD		Laboratory Name: Colorado Analytical Laboratory	
Contact Person: Mark Volle		Contact Person: Customer Service Phone: 303-659-2313	
Comments:		Comments:	
Do Samples Need to be Compositied BY THE LAB? <input type="checkbox"/>			

Section III (Supplied or Completed by Public Water System)			
Sample Date: 3/23/17	Collector: Stephanie Schw	Facility ID (On Schedule): New Well	Sample Pt ID (On Schedule): New Well
Section IV Inorganic Chemicals (Completed by Certified Laboratory)			

Lab Receipt Date	Lab Analysis Date	Lab Sample ID	Analyte Name	CAS No.	Analytical Method	MCL (mg/L)	Lab MRL (mg/L)	Result (mg/L)
3/24/17	3/29/17	170324007-01A	Antimony	7740-36-0	EPA 200.8	0.006	0.001	BDL
3/24/17	3/29/17	170324007-01A	Arsenic	7440-38-2	EPA 200.8	0.01	0.001	0.002
3/24/17	3/29/17	170324007-01A	Barium	7440-39-3	EPA 200.8	2	0.001	0.003
3/24/17	3/29/17	170324007-01A	Beryllium	7440-41-7	EPA 200.8	0.004	0.001	BDL
3/24/17	3/29/17	170324007-01A	Cadmium	7440-43-9	EPA 200.8	0.005	0.001	BDL
3/24/17	3/29/17	170324007-01A	Chromium	7440-47-3	EPA 200.8	0.1	0.001	BDL
3/24/17	3/29/17	170324007-01A	Mercury	7439-97-6	EPA 200.8	0.002	0.0001	BDL
3/24/17	3/29/17	170324007-01A	Nickel	7440-02-0	EPA 200.8	N/A	0.001	0.001
3/24/17	3/29/17	170324007-01A	Selenium	7782-49-2	EPA 200.8	0.05	0.001	BDL
3/24/17	3/30/17	170324007-01A	Sodium	7440-23-5	EPA 200.7	N/A	0.1	52.8
3/24/17	3/29/17	170324007-01A	Thallium	7440-28-0	EPA 200.8	0.002	0.001	BDL

NT: Not Tested
Lab MRL: Laboratory Minimum Reporting Level
BDL: Below Laboratory MRL. A less than (<) may also used.

mg/L: Milligrams per Liter
MCL: Maximum Contaminant Level



Drinking Water Chain of Custody

page 1 of 2

Report To Information		Bill To Information (if different from report to)		State Form / Project Information	
Company Name: <u>JDS-Hydro Consultants</u>	Company Name: <u>SR WATER</u>	PWSID: <u>CO 0121724</u>	System Name: <u>STEERING BANK MD</u>		
Contact Name: <u>Mark Volle</u>	Contact Name: <u>JIM MORLEY</u>	Address: <u>20 BOWDER CRESCENT</u>		Address: <u>20 BOWDER CRESCENT</u>	
Address: <u>545 E. Pikes Peak Ave</u>	Address: <u>20 BOWDER CRESCENT</u>	City: <u>COLO SPRGS</u>		City: <u>COLO SPRGS</u>	
City: <u>CO</u>	City: <u>COLO SPRGS</u>	State: <u>CO</u>		State: <u>CO</u>	
Zip: <u>80903</u>	Zip: <u>80905</u>	County: <u>El Paso</u>		County: <u>El Paso</u>	
Phone: <u>719-207-0079</u>	Phone: <u>3870@ad.com</u>	Compliance Samples: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Compliance Samples: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Fac: <u>719-207-0079</u>	Fac: <u>3870@ad.com</u>	Send Forms to State: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Send Forms to State: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Email: <u>mvolle@jds-hydro.com</u>	Email: <u>jmorley@ad.com</u>				
Sampler Name: <u>Stephanie Schwenke</u>	PO No.:				

CAL Task No. 170324007		PHASE I, II, V Drinking Water Analyses (check analysis)																Subcontract Analyses																				
ARF																																						
Date	Time	Client Sample ID / EP Code	No. of Containers	Residual Chlorine (mg/L)	P/A Samples Only	Total Coliform P/A	504.1 EDB/BCP	505 Pests/PCBS	515.4 Herbicides	524.2 VOCs	525.2 SOCs-Pest	531.1 Carbamates	547 Glyphosate	548.1 Endothal	549.2 Diquat	524.2 THMs	552.2 HAA5s	Lcad/Copper	Nitrate	Nitrite	Fluoride	Inorganics	Alk/Lang. Index	TOC, DOC (Circle)	SVA, UV 254 (Circle)	625-50C	Gross Alpha/Beta	Radium 226	Radium 228	Radon	Uranium							
3-23	7:55	#1	1						X																													
	7:57	#2	1								X			X																								
	8:11	#3	2			X																																
	7:52	#4	1																																			
	7:52am	#5	1																																			
	7:53	#6	3																																			
	7:58	#7	2																																			
	7:59	#8 - no H2O included	1												X																							
	8:02	#9	1																																			
	8:02	#10	1																																			

Instructions: No H₂SO₄ preservative was included with the bottle shipment. Please preserve Diquat Sample #8 as soon as you receive the shipment.

Relinquished By: [Signature] Date/Time: 3-23 11:30am

Received By: [Signature] Date/Time: 3/24/17 10:10

Delivered Via: Fed Ex C/S Charge Date/Time: 3.3 °C/ice Sample Pres. Yes No

Reinquinshed By: [Signature] Date/Time: 3/24/17 10:10 Received By: [Signature] Date/Time: 3/24/17 10:10



Drinking Water Chain of Custody

page 2 of 2

Report To Information		Bill To Information (if different from report to)		State Form / Project Information	
Company Name: <u>JDS-Hydro Consultants</u>	Company Name: <u>SR Water</u>	PWSID: <u>CO 0121724</u>			
Contact Name: <u>Mark Volle</u>	Contact Name: <u>Jim Morley</u>	System Name: <u>Serling Ranch MD</u>			
Address: <u>545 E. Pikes Peak Ave</u>	Address: <u>20 Boulder Crescent</u>	Address: <u>20 Boulder Crescent</u>			
<u>Suite 300</u>	<u>City CS</u>	City: <u>CS</u>	State: <u>CO</u>	Zip: <u>80903</u>	
City: <u>CS</u>	State: <u>CO</u>	City: <u>CS</u>	State: <u>CO</u>	Zip: <u>80903</u>	
Phone: <u>719-227-0073</u>	Phone: <u>719-227-0073</u>	County: <u>El Paso</u>			
Fax: <u>Mvolle@jds-hydro.com</u>	Email: <u>morley3870@aol.com</u>	Compliance Samples: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Sampler Name: <u>Sephane Schuster</u>	PO No.:	Send Forms to State: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			

CAL Task No. 170324007		PHASE I, II, V Drinking Water Analyses (check analysis)															Subcontract Analyses																			
ARF		No. of Containers	Residual Chlorine (mg/L)	Total Coliform P/A	504.1 EDB/D/BCP	505 Pests/PCBs	515.4 Herbicides	525.2 SOCs-Pest	531.1 Carbamates	547 Glyphosate	548.1 Endothal	549.2 Diquat	524.2 THMs	522.2 HAAs	Lead/Copper	Nitrate	Nitrite	Fluoride	Inorganics	Alk./Lang. Index	(TOC, DOC) (Circle)	SUVA, UV 254 (Circle)	X Cyanide	Gross Alpha/Beta	Radium 226	Radium 228	Radon	Uranium								
Date	Time	Client Sample ID / BP Code																																		
3-23	8:07	#11	1																																	
	8:00 am	#12	X																																	
	8:26	#14	3		X																															
	8:18	#15	3																																	
	8:12	#16 (1,4 Dioxane)	2																																	
	8:23	#17	3																																	
	8:24	#18	2						X																											
	8:15	#19	3			X															X															
	8:29	#20	3					X																												
Instructions:		C/S Info:																																		
		Delivered Via: <input type="checkbox"/> C/S Charge <input type="checkbox"/> Temp. °C/Ice										Seals Present Yes <input type="checkbox"/> No <input type="checkbox"/> Headspace Yes <input type="checkbox"/> No <input type="checkbox"/>										Sample Pres. Yes <input type="checkbox"/> No <input type="checkbox"/>														
Relinquished By: <u>[Signature]</u>		Date/Time: <u>3-23 11:30am</u>										Relinquished By: <u>[Signature]</u>										Date/Time: <u>[Signature]</u>														

Analytical Results

TASK NO: 170324007

Report To: Mark Volle

Company: JDS Hydro Consultants
545 E. Pikes Peak Ave
Suite 300
Colorado Springs CO 80903

Bill To: Jim Morley

Company: SR Water
20 Boulder Crescent St.
Colorado Springs CO 80903

Task No.: 170324007
Client PO:
Client Project: Sterling Ranch MD CO0121724

Date Received: 3/24/17
Date Reported: 4/21/17
Matrix: Water - Drinking

Customer Sample ID: Sterling Ranch MD
Sample Date/Time: 3/23/17 8:03 AM
Lab Number: 170324007-01

Test	Result	Method	ML	Date Analyzed	Analyzed By
Bicarbonate	99.7 mg/L as CaCO ₃	SM 2320-B	0.1	3/28/17	VDB
Calcium as CaCO ₃	2.6 mg/L	SM 3111-B	0.1	3/30/17	MBN
Carbonate	< 0.1 mg/L as CaCO ₃	SM 2320-B	0.1	3/28/17	VDB
Langelier Index	-1.23 units	SM 2330-B		3/31/17	LJG
pH	8.16 units	SM 4500-H-B	0.01	3/24/17	MBN
Temperature	20 °C	SM 4500-H-B	1	3/24/17	MBN
Total Alkalinity	99.7 mg/L as CaCO ₃	SM 2320-B	0.1	3/28/17	VDB
Total Dissolved Solids	143 mg/L	SM 2540-C	5	3/29/17	ISG

Abbreviations/ References:

ML = Minimum Level = LRL = RL
mg/L = Milligrams Per Liter or PPM
ug/L = Micrograms Per Liter or PPB
mpn/100 ml = Most Probable Number Index/ 100 ml
Date Analyzed = Date Test Completed



DATA APPROVED FOR RELEASE BY



Drinking Water Chain of Custody

page 1 of 2

Report To Information		Bill To Information (if different from report to)	
Company Name: <u>JDS-Hydro Consultants</u>	Company Name: <u>SR WATER</u>	State Form / Project Information	
Contact Name: <u>Mark Volle</u>	Contact Name: <u>JIM MORLEY</u>	FWSID: <u>CO 0121724</u>	
Address: <u>545 E. Pikes Peak Ave</u>	Address: <u>20 BOWDER CRESCENT</u>	System Name: <u>STEALING BANCH MD</u>	
<u>Suite 303</u>	<u>20 BOWDER CRESCENT</u>	City: <u>COLO SPRGS</u> State: <u>CO</u> Zip: <u>80903</u>	
City: <u>CO</u> State: <u>CO</u> Zip: <u>80903</u>	City: <u>SPRINGS</u> State: <u>CO</u> Zip: <u>80903</u>	County: <u>El Paso</u>	
Phone: <u>719-227-0072</u> Fax:	Phone: <u>3870@aal.com</u> Fax:	Compliance Samples: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Email: <u>m.volle@jds-hydro.com</u>	Email: <u>jmorley3870@aol.com</u>	Send Forms to State: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Sampler Name: <u>Stephanie Schwenke</u> PO No.:			

CAL Task No. 170324007		PHASE I, II, V Drinking Water Analyses (check analysis)															Subcontract Analyses																		
Date	Time	Client Sample ID / EP Code	No. of Containers	Residual Chlorine (mg/L) P/A Samples Only	Total Coliform P/A	504.1 EDB/BCP	505 Pests/PCBs	515.4 Herbicides	524.2 VOCs	525.2 SOCs-Pest	531.1 Carbinates	547 Glyphosate	548.1 Endothall	549.2 Diquat	524.2 TTHMs	552.2 HAA5s	Lead/Copper	Nitrate	Nitrite	Fluoride	Inorganics	Alk./Lang. Index	TOC, DOC (Circle)	SVA, UV 254 (Circle)	625-50C	Gross Alpha/Beta	Radium 226	Radium 228	Radon	Uranium					
3-23	7:55	#1	1					X					X																						
	7:57	#2	1							X																									
	8:11	#3 8:05	2		X																														
	7:52	#4	1		X																														
	7:52am	#5	1																							X									
	7:53	#6	3																							X	X								
	7:58	#7	3																							X	X								
	7:58	#8 - no H2SO4 preservative included in	2																																
	7:59	#9	1																																
	8:03	#10	1																																

Instructions: No H₂SO₄ preservative was included with the bottle shipment. Please preserve Diquat Sample #8 as soon as you receive this shipment.

Relinquished By: [Signature] Date/Time: 3-23 11:30am Received By: Elise Wilson Date/Time: 3/24/10 10:10

Delivered Via: Fed Ex C/S Charge C/S Info: 3.3 °C/Sec Temp. 3.3 °C/Sec Sample Pres. Yes No Date/Time: 3-23 11:30am Received By: Elise Wilson Date/Time: 3/24/10 10:10



Drinking Water Chain of Custody

page 2 of 2

Report To Information Company Name: <u>JDS-Hydro Consultants</u> Contact Name: <u>Mark Volle</u> Address: <u>546 E. Pikes Peak Ave</u> <u>Suite 300</u> City: <u>CS</u> State: <u>CO</u> Zip: <u>80903</u> Phone: <u>719-227-0072</u> Fax: Email: <u>mvolle@jds-hydro.com</u> Sampler Name: <u>Soprano Schuster KERO No.</u>		Bill To Information (if different from report to) Company Name: <u>SR Water</u> Contact Name: <u>Jim Morley</u> Address: <u>20 Boulder Crest</u> <u>Colorado</u> State: <u>CO</u> Zip: <u>80903</u> Phone: Fax: Email: <u>jmorley3870@aol.com</u>		State Form / Project Information PWSID: <u>CO 0121724</u> System Name: <u>Serling Ranch MD</u> Address: <u>20 Boulder Crest</u> City: <u>CS</u> State: <u>CO</u> Zip: <u>80903</u> County: <u>El Paso</u> Compliance Samples: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Send Forms to State: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
---	--	--	--	--	--

PHASE I, II, V Drinking Water Analyses (check analysis)		Subcontract Analyses	
CAL Task No. 170324007	ARF	Gross Alpha/Beta <input type="checkbox"/>	Radon <input type="checkbox"/>
Date 3-23 8:01 #11	Client Sample ID / EP Code #12	Radium 228 <input type="checkbox"/>	Radium 226 <input type="checkbox"/>
Date 8:26 #14	Client Sample ID / EP Code #15	Gross Alpha/Beta <input checked="" type="checkbox"/>	Radon <input checked="" type="checkbox"/>
Date 8:12 #16 (1,4 Dioxane)	Client Sample ID / EP Code #17	Gross Alpha/Beta <input type="checkbox"/>	Radon <input type="checkbox"/>
Date 8:28 #18	Client Sample ID / EP Code #19	Gross Alpha/Beta <input type="checkbox"/>	Radon <input type="checkbox"/>
Date 8:15 #20	Client Sample ID / EP Code #20	Gross Alpha/Beta <input type="checkbox"/>	Radon <input type="checkbox"/>
Date 8:29 #20	Client Sample ID / EP Code #20	Gross Alpha/Beta <input type="checkbox"/>	Radon <input type="checkbox"/>
Instructions:		Seals Present Yes <input type="checkbox"/> No <input type="checkbox"/> Headspace Yes <input type="checkbox"/> No <input type="checkbox"/>	
No. of Containers 1 3 3 3 3 3		Residual Chlorine (mg/L) P/A Samples Only <input checked="" type="checkbox"/>	
Total Coliform P/A 504.1 EDB/D/BCP <input checked="" type="checkbox"/>		505 Pests/PCBs <input checked="" type="checkbox"/>	
515.4 Herbicides <input checked="" type="checkbox"/>		525.2 SOCs-Pest <input checked="" type="checkbox"/>	
531.1 Carbamates <input type="checkbox"/>		547 Glyphosate <input type="checkbox"/>	
548.1 Endothal <input type="checkbox"/>		549.2 Diquat <input type="checkbox"/>	
552.2 THMs <input type="checkbox"/>		552.2 HAAs <input type="checkbox"/>	
Lead/Copper <input type="checkbox"/>		Nitrate <input type="checkbox"/>	
Nitrite <input type="checkbox"/>		Nitrite <input type="checkbox"/>	
Fluoride <input type="checkbox"/>		Inorganics <input type="checkbox"/>	
Alk./Lang. Index <input type="checkbox"/>		(TOC, DOC) (Circle) <input checked="" type="checkbox"/>	
SUVA, UV 254 (Circle) <input type="checkbox"/>		Cyanide <input checked="" type="checkbox"/>	
C/S Info:		Delivered Via:	
Retinquired By:		C/S Charge <input type="checkbox"/>	
Date/Time:		Temp. °C/fce	
Received By:		Sample Pres. Yes <input type="checkbox"/> No <input type="checkbox"/>	
Date/Time:		Date/Time:	

Relinquished By: [Signature] 3-23 11:30am

Received By: [Signature] 3-23 11:30am

Received By: [Signature] 3-23 11:30am



Nitrate and Nitrite as Nitrogen Certified Laboratory Report Form
WQCD - Drinking Water CAS
Submit Online at <http://www.wqcdcompliance.com/login>

Revised 4/13/2015

NOX

Section I (Supplied or Completed by Public Water System)		Section II (Supplied or Completed by Certified Laboratory)	
Public Water System Information		Certified Laboratory Information	
PWSID#: CO0121724	Laboratory ID: CO 0015		
System Name: Sterling Ranch MD	Laboratory Name: Colorado Analytical Laboratory		
Contact Person: Mark Volle	Contact Person: Customer Service	Phone #: 719-227-0072	Phone: 303-659-2313
Comments:		Comments:	

Section III (Supplied or Completed by Public Water System)				Section IV (Supplied or Completed by Certified Laboratory)								
Sample Date	Collector	Facility ID On Schedule	Sample Pt ID On Schedule	Confirmation?	Lab Receipt Date	Lab Analysis Date	Laboratory Sample ID #	Analyte	Analytical Method	MCL (mg/L)	Lab MRI (mg/L)	Result (mg/L)
3/23/17	ephanie Schwenk	New Well	New Well	<input type="checkbox"/>	3/24/17	3/24/17	170324007-01	Nitrate Nitrogen	EPA 300.0	10	0.1	BDL
3/23/17	ephanie Schwenk	New Well	New Well	<input type="checkbox"/>	3/24/17	3/24/17	170324007-01	Nitrite Nitrogen	EPA 300.0	1	0.1	BDL

NT: Not Tested
 Lab MRL: Laboratory Minimum Reporting Level
 BDL: Below Laboratory MRL. A less than (<) may also used.

mg/L: Milligrams per Liter
 MCL: Maximum Contaminant Level

4/21/17
 170324007-01
 1/1
 N



Brighton Lab
 240 South Main Street
 Brighton, CO 80601

Lakewood Lab
 12860 W. Cedar Dr, Suite 100A
 Lakewood CO 80228

Phone: 303-659-2313
 Fax: 303-659-2315

www.coloradolab.com

Drinking Water Chain of Custody

page 2 of 2

Report To Information		Bill To Information (if different from report to)	
Company Name: <u>JDS-Hydro Consultants</u>	Company Name: <u>SR Water</u>	PWSID: <u>CO 0121724</u>	System Name: <u>Serling Ranch MD</u>
Contact Name: <u>Mark Volle</u>	Contact Name: <u>Jim Morley</u>	Address: <u>20 Boulder Crest</u>	Address: <u>20 Boulder Crest</u>
Address: <u>545 E. Pikes Peak Ave</u>	Address: <u>20 Boulder Crest</u>	City: <u>CS</u>	City: <u>CS</u>
State: <u>CO</u>	State: <u>CO</u>	State: <u>CO</u>	State: <u>CO</u>
Zip: <u>80903</u>	Zip: <u>80903</u>	Zip: <u>80903</u>	Zip: <u>80903</u>
Phone: <u>719-227-0072</u>	Phone: <u>3870-0001</u>	County: <u>El Paso</u>	County: <u>El Paso</u>
Fax: <u></u>	Fax: <u></u>	Compliance Samples: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Compliance Samples: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Email: <u>M.volle@jds-hydro.com</u>	Email: <u>jmorley@srwater.com</u>	Send Forms to State: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Send Forms to State: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Sampler Name: <u>Stephanie Schuster</u>	PO No.:		

C/L Task No.		PHASE I, II, V Drinking Water Analyses (check analysis)														Subcontract Analyses																	
170324007																																	
ARF																																	
Date	Time	Client Sample ID / EP Code	No. of Containers	Residual Chlorine (mg/L)	P/A Samples Only	Total Coliform P/A	504.1 EDB/BCP	505 Pests/PCBs	515.4 Herbicides	525.2 SOCs-Pest	531.1 Carbamates	547 Glyphosate	548.1 Endothal	549.2 Diquat	524.2 THMs	552.2 HAAs	Lead/Copper	Nitrate	Nitrite	Fluoride	Inorganics	Alk./Lang. Index	(TOC, DOC) (Circle)	SUVA, UV 254 (Circle)	Gross Alpha/Beta	Radium 226	Radium 228	Radon	Uranium				
3-23	8:01	#11	1																														
	8:00	#12	X																														
	8:26	#14	3				X																										
	8:18	#15	2																														
	8:12	#16 (1,4 Dioxane)	3																														
	8:23	#17	2																														
	8:24	#18	2																														
	8:15	#19	3																														
	8:29	#20	3																														
Instructions:																																	
		C/S Info:														Seals Present Yes <input type="checkbox"/> No <input type="checkbox"/> Headspace Yes <input type="checkbox"/> No <input type="checkbox"/>																	
		Delivered Via: <input type="checkbox"/> C/S Charge <input type="checkbox"/> Temp. °C/Ice														Sample Pres. Yes <input type="checkbox"/> No <input type="checkbox"/>																	
		Retinquired By: <u>[Signature]</u> Date/Time: <u>3-23 11:30am</u>														Received By: <u>[Signature]</u> Date/Time: <u></u>																	



Organic Chemicals Certified Laboratory Report Form
WQCD - Drinking Water CAS
Submit Online at <http://www.wqedcompliance.com/login>

Revised 4/13/2015

VOC/SOC

Section I (Supplied or Completed by Public Water System)		Section JI (Supplied or Completed by Certified Laboratory)	
Public Water System Information		Certified Laboratory Information	
PWSID#: CO0121724		Laboratory ID: CO 00063	
System Name: Sterling Ranch MD		Laboratory Name: Colorado Analytical Laboratory	
Contact Person: Mark Volle		Contact Person: Customer Service Phone: 303-659-2313	
Comments:		Comments:	
Do Samples Need to be Composited BY THE LAB? <input type="checkbox"/>			

PWSID#: CO0121724		Section V (Supplied or Completed by Public Water System)				Section VI Synthetic Organic Chemicals (Supplied or Completed by Certified Laboratory)				
Lab Receipt Date	Lab Analysis Date	Collector:	Stephanie Schwenk	Facility ID (On Schedule):	New Well	Sample Pt ID (On Schedule):	New Well	MCL (ug/L)	Lab MRL (ug/L)	Result (ug/L)
3/24/17	4/3/17									
3/24/17	3/29/17			Dibromochloropropane	96-12-8	EPA 504.1	0.2	0.02	BDL	
3/24/17	3/29/17			2,4-D	94-75-7	EPA 515.4	70	0.1	BDL	
3/24/17	3/31/17			2,4,5-TP	93-72-1	EPA 515.4	50	0.2	BDL	
3/24/17	3/31/17			Alachlor	15972-60-8	EPA 525.2	2	0.2	BDL	
3/24/17	3/31/17			Aldicarb	116-06-3	EPA 531.1	N/A	0.6	BDL	
3/24/17	3/31/17			Aldicarb sulfone	1646-88-4	EPA 531.1	N/A	1	BDL	
3/24/17	3/31/17			Aldicarb sulfoxide	1646-87-3	EPA 531.1	N/A	0.7	BDL	
3/24/17	3/31/17			Atrazine	1912-24-9	EPA 525.2	3	0.1	BDL	
3/24/17	3/31/17			Benzo(a)pyrene	50-32-8	EPA 525.2	0.2	0.02	BDL	
3/24/17	3/31/17			Carbofuran	1563-66-2	EPA 531.1	40	0.9	BDL	
3/24/17	3/30/17			Chlordane	57-74-9	EPA 505	2	0.2	BDL	
3/24/17	3/29/17			Delapone	75-99-0	EPA 515.4	200	1	BDL	
3/24/17	3/31/17			Di(2-ethylhexyl)adipate	103-23-1	EPA 525.2	400	0.6	BDL	
3/24/17	3/31/17			Di(2-ethylhexyl)phthalate	117-81-7	EPA 525.2	6	0.6	BDL	
3/24/17	3/29/17			Dinoseb	85-85-7	EPA 515.4	7	0.2	BDL	
3/24/17	3/29/17			Diquat	85-00-7	EPA 549.2	20	0.4	BDL	
3/24/17	3/29/17			Endothall	145-73-3	EPA 548.1	100	9	BDL	
3/24/17	3/30/17			Endrin	72-20-8	EPA 505	2	0.01	BDL	
3/24/17	4/3/17			Ethylene dibromide	106-93-4	EPA 504.1	0.05	0.01	BDL	
3/24/17	3/31/17			Heptachlor	76-44-8	EPA 525.2	0.4	0.04	BDL	
3/24/17	3/30/17			Heptachlor epoxide	1024-57-3	EPA 505	0.2	0.02	BDL	

NT: Not Tested ug/L; Micrograms per Liter MCL: Maximum Contaminant Level BDL Below Laboratory MRL A less than sign (<) may also be used.

PWSID#: CO0121724		Section V (Supplied or Completed by Public Water System)						
Sample Date:	3/23/17	Collector:	Stephanie Schwenk	Facility ID (On Schedule):	New Well	Sample Pt ID (On Schedule):	New Well	
Section VI Synthetic Organic Chemicals (Supplied or Completed by Certified Laboratory)		Lab Sample ID	Analyte Name	CAS No.	Analytical Method	MCL (ug/L)	Lab MRL (ug/L)	Result (ug/L)
3/24/17	3/30/17	170324007-01F	Hexachlorobenzene	118-74-1	EPA 505	1	0.1	BDL
3/24/17	3/30/17	170324007-01F	Hexachlorocyclopentadiene	77-47-4	EPA 505	50	0.1	BDL
3/24/17	3/30/17	170324007-01F	Lindane	58-89-9	EPA 505	0.2	0.02	BDL
3/24/17	3/30/17	170324007-01F	Methoxychlor	72-43-5	EPA 505	40	0.1	BDL
3/24/17	3/31/17	170324007-01J	Oxamyl	23135-22-0	EPA 531.1	200	1	BDL
3/24/17	3/29/17	170324007-01G	Pentachlorophenol	87-86-5	EPA 515.4	1	0.04	BDL
3/24/17	3/29/17	170324007-01G	Picloram	1918-02-1	EPA 515.4	500	0.1	BDL
3/24/17	3/30/17	170324007-01F	Polychlorinated biphenyl's	1336-36-3	EPA 505	0.5	0.1	BDL
3/24/17	3/31/17	170324007-01I	Simazine	122-34-9	EPA 525.2	4	0.07	BDL
3/24/17	3/30/17	170324007-01F	Toxaphene	8001-35-2	EPA 505	3	1	BDL

NT: Not Tested ug/L; Micrograms per Liter MCL: Maximum Contaminant Level BDL Below Laboratory MRL. A less than sign (<) may also be used.

170324007-01 N

2/2
4/21/17



Drinking Water Chain of Custody

page 1 of 2

Report To Information		Bill To Information (if different from report to)		State Form / Project Information	
Company Name: <u>JDS Hydro Consultants</u>	Company Name: <u>SR WATER</u>	PWSID: <u>CO 0121724</u>		System Name: <u>STEALING RANCH MD</u>	
Contact Name: <u>Mark Volle</u>	Contact Name: <u>JIM MORLEY</u>	Address: <u>20 BOULDER CRESCENT</u>		Address: <u>20 BOULDER CRESCENT</u>	
Address: <u>545 E. Pikes Peak Ave</u>	Address: <u>20 BOULDER CRESCENT</u>	City: <u>CO SPRINGS</u> State: <u>CO</u> Zip: <u>80905</u>		City: <u>CO SPRINGS</u> State: <u>CO</u> Zip: <u>80905</u>	
City: <u>CO Springs</u> State: <u>CO</u> Zip: <u>80903</u>	City: <u>CO Springs</u> State: <u>CO</u> Zip: <u>80905</u>	Phone: <u>719-227-0072</u> Fax:		County: <u>El Paso</u>	
Phone: <u>719-227-0072</u> Fax:	Phone: <u>719-227-0072</u> Fax:	Email: <u>m.volle@jds-hydro.com</u>		Compliance Samples: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Email: <u>m.volle@jds-hydro.com</u>	Email: <u>jmorley3870@aol.com</u>	Sampler Name: <u>Stephanie Schwienke</u> PO No.:		Send Forms to States: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

CAL Task No. 170324007		PHASE I, II, V Drinking Water Analyses (check analysis)														Subcontract Analyses																				
Date	Time	Client Sample ID / EP Code	No. of Containers	Residual Chlorine (mg/L) P/A Samples Only	Total Coliform P/A	504.1 EDB/BCP	505 Pests/PCBs	515.4 Herbicides	524.2 VOCs	525.2 SOCs-Pest	531.1 Carbamates	547 Glyphosate	548.1 Endothal	549.2 Diquat	524.2 TTHMs	552.2 HAAs	Lead/Copper	Nitrate	Nitrite	Fluoride	Inorganics	Alk./Lang. Index	TOC, DOC (Circle)	SVA, UV 254 (Circle)	605-50C	Gross Alpha/Beta	Radium 226	Radium 228	Radon	Uranium						
3-23	7:55	#1	1					X					X																							
	7:57	#2	1						X																											
	8:11	#3	2							X																										
	7:52	#4	1		X																															
	7:52	#5	1																																	
	7:52am	#6	3																																	
	7:53	#7	2																																	
	7:58	#8 - no H2SO4 preservative included in	1																																	
	7:59	#9	1																																	
	8:03	#10	1																																	

Instructions: No H₂SO₄ preservative was included with the bottle shipment. Please preserve Diquat Sample #8 as soon as you receive this shipment.

Seals Present Yes No Headspace Yes No

Temp. 3.3 °C/ice Sample Pres. Yes No

Delivered Via: Fed Ex C/S Charge Date/Time: Received By:

Relinquished By: Stephanie Schwienke Date/Time: 3/23 11:30am Received By: Elise Wilson Date/Time: 3/24/10 10:10



Drinking Water Chain of Custody

page 2 of 2

Report To Information		Bill To Information (if different from report to)	
Company Name: <u>JDS-Hydro Consultants</u>	Company Name: <u>SR Water</u>	State Form / Project Information	
Contact Name: <u>Mark Volle</u>	Contact Name: <u>Jim Morley</u>	PWSID: <u>CO 0121724</u>	System Name: <u>Serling Ranch MD</u>
Address: <u>545 E. Pikes Peak Ave</u>	Address: <u>20 Boulder Crescent</u>	Address: <u>20 Boulder Crescent</u>	
<u>Suite 300</u>		City: <u>CS</u>	State: <u>CO</u>
City: <u>CS</u>	State: <u>CO</u>	City: <u>CS</u>	State: <u>CO</u>
Phone: <u>719-227-0072</u>	Phone: <u>3870-0231.com</u>	County: <u>El Paso</u>	Zip: <u>80903</u>
Fax: <u>3870-0231.com</u>	Email: <u>jmorley@asl.com</u>	Compliance Samples: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Sampler Name: <u>Sophene Schusterke</u>	PO No.:	Send Forms to State: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

CAL Task No. 170324007		PHASE I, II, V Drinking Water Analyses (check analysis)															Subcontract Analyses																				
ARF		No. of Containers	Residual Chlorine (mg/L)	Total Coliform P/A	504.1 EDB/BCP	505 Pests/PCBs	515.4 Herbicides	525.2 SOCs-Pest	531.1 Carbinates	547 Glyphosate	548.1 Endothal	549.2 Diquat	524.2 THMs	552.2 HAAs	Lead/Copper	Nitrate	Nitrite	Fluoride	Inorganics	Alk./Lang. Index	(TOD, DOC (Circle))	SUVA, UV 254 (Circle)	X Cyanide	Gross Alpha/Beta	Radium 226	Radium 228	Radon	Uranium									
Date	Time	Client Sample ID / EP Code																																			
3-23	8:01	#11	1																																		
	8:00 am	#12	X																																		
	8:26	#14	3		X																																
	8:18	#15	2																																		
	8:12	#16 (1,4 Dioxane)	3																																		
	8:23	#17	2																																		
	8:28	#18	3						X																												
	8:15	#19	3																																		
	8:29	#20	3																																		
Instructions:																																					
Retinquished By: <u>[Signature]</u>		Date/Time: <u>3-23 11:30am</u>	Received By: <u>[Signature]</u>															Date/Time: <u>3-23 11:30am</u>	Delivered Via: <u>C/S Charge</u>			Relinquished By: <u>[Signature]</u>			Date/Time: <u>3-23 11:30am</u>	Temp. °C/fce			Sample Pres. Yes <input type="checkbox"/> No <input type="checkbox"/>			Seals Present Yes <input type="checkbox"/> No <input type="checkbox"/>			Headspace Yes <input type="checkbox"/> No <input type="checkbox"/>		



Radionuclides Certified Laboratory Report Form

Revision 6/13/2014

WQCD – Drinking Water CAS
 4300 Cherry Creek Drive South; Denver, CO 80246-1530
 Fax: (303) 758-1398; cdphe.drinkingwater@state.co.us



Colorado Department
 of Public Health
 and Environment

Section I (Supplied or Completed by Public Water System)

Section II (Supplied or Completed by Certified Laboratory)

Public Water System Information

Certified Laboratory Information

PWS ID: CO0121724

Laboratory ID: CO 00008

System Name: Sterling Ranch MD

Laboratory Name: Hazen Research, Inc.

Contact Person:

Contact Person: Jessica Axen

Phone #:

Phone #: 303-279-4501

Comments:

Comments:

Do Samples Need to be
 Composited BY THE LAB?

Section III (Supplied or Completed by Public Water System)

Sample Date: 03/23/2017 Collector: Facility ID (On Schedule): Sample Pt ID (On Schedule):

Section IV Radionuclides (Supplied or Completed by Certified Laboratory)

Lab Receipt Date	Lab Analysis Date	Lab Sample ID	Analyte Name (Code)	CAS No.	Analytical Method	MCL	Lab MRL	Result
03/24/2017	04/18/2017	C27017-001	Gross Alpha Including Uranium (4002)	12587-46-1	SM 7110 B	N/A	1.5	0.0(±1.5)
			Combined Uranium (4006)	7440-61-1	D2907-97	30 ug/L		
03/24/2017	04/07/2017	C27017-001	Radium -226 (4020)	13982-63-3	SM 7500-Ra B	N/A	0.1	0.4(±0.3)
03/24/2017	03/30/2017	C27017-001	Radium -228 (4030)	15262-20-1	EPA Ra-05	N/A	0.6	0.2(±0.6)
03/24/2017	04/18/2017	C27017-001	Gross Beta (4100)	12587-47-2	SM 7110 B	50 pCi/L.*	2.1	0.0(±2.0)
			Total Dissolved Solids (1930)		EPA 160.3	N/A		

*The MCL for Gross Beta Particle Activity is 4 mrem/year. Since there is no simple conversion between mrem/year and pCi/L EPA considers 50 pCi/L to be the level of concern.

Section V Calculated Values

Calculated Value	Calculated Value
Gross Alpha Excluding Uranium (4000)	15 pCi/L
Combined Radium {-226 & -228} (4010)	5 pCi/L

NT: Not Tested

ug/L: Micrograms per Liter

Lab MRL: Laboratory Minimum Reporting Level

pCi/L: Picoocuries per Liter

BDL: Below Laboratory MRL. A less than sign (<) may also be used

MCL: Maximum Contaminant Level

Report To: Mark Volle
Company: JDS Hydro Consultants
545 E. Pikes Peak Ave
Suite 300
Colorado Springs CO 80903

Bill To: Jim Morley
Company: SR Water
20 Boulder Crescent St.
Colorado Springs CO 80903

Task No.: 170324007
Client PO:
Client Project: Sterling Ranch MD CO0121724

Date Received: 3/24/17
Date Reported: 4/21/17
Matrix: Water - Drinking

Customer Sample ID: Sterling Ranch MD
Sample Date/Time: 3/23/17 8:03 AM
Lab Number: 170324007-01

Facility ID: New Well
Sample Point ID: New Well

Test	Result	Method	ML	Date Analyzed	Analyzed By
Chloride	1.3 mg/L	EPA 300.0	0.1 mg/L	3/24/17	LJG
Cyanide-Free	< 0.005 mg/L	EPA 335.4	0.005 mg/L	3/28/17	VDB
E-Coli	< 1 mpn/100ml	Coli fert	1 mpn/100ml	3/25/17	VDB
Sulfate	10.7 mg/L	EPA 300.0	0.1 mg/L	3/24/17	LJG
Total Coliform	68 mpn/100ml	Colifert	1 mpn/100ml	3/25/17	VDB
Total Organic Carbon	< 0.5 mg/L	SM 5310-C	0.5 mg/L	3/28/17	ISG
Turbidity	1.08 NTU	SM 2130-B	0.01 NTU	3/24/17	MBN
Total					
Aluminum	0.032 mg/L	EPA 200.8	0.001 mg/L	3/29/17	TCD
Calcium	1.0 mg/L	EPA 200.7	0.1 mg/L	3/29/17	MBN
Copper	< 0.0008 mg/L	EPA 200.8	0.0008 mg/L	3/29/17	TCD
Iron	0.180 mg/L	EPA 200.7	0.005 mg/L	3/30/17	MBN
Lead	0.0002 mg/L	EPA 200.8	0.0001 mg/L	3/29/17	TCD
Magnesium	0.06 mg/L	EPA 200.7	0.02 mg/L	3/29/17	MBN
Manganese	0.0071 mg/L	EPA 200.8	0.0008 mg/L	3/29/17	TCD
Potassium	1.0 mg/L	EPA 200.7	0.1 mg/L	3/29/17	MBN
Silver	< 0.0001 mg/L	EPA 200.8	0.0001 mg/L	3/29/17	TCD
Strontium	0.009 mg/L	EPA 200.8	0.005 mg/L	3/29/17	TCD
Total Hardness	2.7 mg/L as CaCO ₃	SM 2340-B	0.1 mg/L as CaCO ₃	3/30/17	MBN
Uranium	< 0.0002 mg/L	EPA 200.8	0.0002 mg/L	3/29/17	TCD
Zinc	0.002 mg/L	EPA 200.8	0.001 mg/L	3/29/17	TCD

Abbreviations/ References:

ML = Minimum Level = LRL = RL
mg/L = Milligrams Per Liter or PPM
ug/L = Micrograms Per Liter or PPB
mpn/100 ml = Most Probable Number Index/ 100 ml
Date Analyzed = Date Test Completed



DATA APPROVED FOR RELEASE BY

Analytical Results

TASK NO: 170324007

Report To: Mark Volle
Company: JDS Hydro Consultants
545 E. Pikes Peak Ave
Suite 300
Colorado Springs CO 80903

Bill To: Jim Morley
Company: SR Water
20 Boulder Crescent St.
Colorado Springs CO 80903

Task No.: 170324007
Client PO:
Client Project: Sterling Ranch MD CO0121724

Date Received: 3/24/17
Date Reported: 4/21/17
Matrix: Water - Drinking

Customer Sample ID: Sterling Ranch MD
Sample Date/Time: 3/23/17 8:03 AM
Lab Number: 170324007-01

Facility ID: New Well
Sample Point ID: New Well

Test	Result	Method	ML	Date Analyzed	Analyzed By
<u>Total</u> Zinc	0.002 mg/L	EPA 200.8	0.001 mg/L	3/29/17	TCD

Abbreviations/ References:

ML = Minimum Level = LRL = RL
mg/L = Milligrams Per Liter or PPM
ug/L = Micrograms Per Liter or PPB
mpr/100 mls = Most Probable Number Index/ 100 mls
Date Analyzed = Date Test Completed



DATA APPROVED FOR RELEASE BY



Drinking Water Chain of Custody

page 1 of 2

Report To Information		Bill To Information (if different from report to)		State Form / Project Information	
Company Name: <u>JDS-Hydro Consultants</u>	Company Name: <u>SR WATER</u>	PWSID: <u>CO 0121324</u>	System Name: <u>STEALING BANCH MD</u>		
Contact Name: <u>Mark Volle</u>	Contact Name: <u>JIM MORLEY</u>	Address: <u>20 BOWLER CRESCENT</u>			
Address: <u>545 E. Pikes Peak Ave</u>	Address: <u>20 BOWLER CRESCENT</u>	City: <u>COLO SPRGS</u>	State: <u>CO</u>	Zip: <u>80905</u>	
City: <u>CS</u>	State: <u>CO</u>	City: <u>SPRGS</u>	State: <u>CO</u>	Zip: <u>80905</u>	
Phone: <u>719-227-0072</u>	Fax: <u></u>	County: <u>El Paso</u>	Compliance Samples: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Email: <u>m.volle@jds-hydro.com</u>	Email: <u>jmorley3870@aol.com</u>	Send Forms to State: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
Sampler Name: <u>Stephanie Schwenke</u>	PO No.: <u></u>				

Date	Time	Client Sample ID / EP Code	No. of Containers	Residual Chlorine (mg/L) P/A Samples Only	Total Coliform P/A	504.1 EDB/BCP	505 Pests/PCBS	515.4 Herbicides	524.2 VOCs	525.2 SOCs-Pest	531.1 Carbinates	547 Glyphosate	548.1 Endothall	549.2 Diquat	524.2 TTHMs	552.2 HAA5s	Lead/Copper	Nitrate	Nitrite	Fluoride	Inorganics	Alk./Lang. Index	TOC, DOC (Circle)	SUVA, UV 254 (Circle)	Subcontract Analyses		
																									Radium 226	Radium 228	Uranium
3-23	7:55	#1	1					X					X														
	7:57	#2	1							X																	
	8:11	#3	2		X																						
	7:52	#4	1		X																						
	7:52am	#5	1																								
	7:53	#6	3																								
	7:58	#7	2																								
	7:58	#8 - no H2SO4 preservative included in	1																								
	7:59	#9	1																								
	8:00	#10	1																								

C/S Info: 3.3 °C/lcc Temp. 3.3 °C/lcc Seals Present Yes No Headspace Yes No

Instructions: No H2SO4 preservative was included with the bottle shipment. Please preserve Diquat Sample #8 as soon as you receive the shipment.

Relinquished By: [Signature] Date/Time: 3-23 11:30am Received By: [Signature] Date/Time: 3/24/17 10:10

Delivered Via: Fed Ex C/S Charge Date/Time:



ANALYTICAL SUMMARY REPORT

April 06, 2017

Colorado Analytical Laboratories Inc
PO Drawer 507
Brighton, CO 80601

Work Order: C17030850 Quote ID: C4542 - 624, 625, 1,4-Dioxane
Project Name: 170324007 Sterling Ranch MD

Energy Laboratories, Inc. Casper WY received the following 1 sample for Colorado Analytical Laboratories Inc on 3/28/2017 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C17030850-001	170324007 Sterling Ranch MD	03/23/17 8:03	03/28/17	Groundwater	Azeotropic Distillation Separatory Funnel Liquid-Liquid Ext. Semi-Volatile Organic Compounds 624-Purgeable Organics Volatile Compounds by Azeotropic Distillation

The results as reported relate only to the item(s) submitted for testing. The analyses presented in this report were performed at Energy Laboratories, Inc., 2393 Salt Creek Hwy., Casper, WY 82601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

If you have any questions regarding these test results, please call.

Report Approved By:


Randy Horton, Project Manager

Digitally signed by
Randy Horton
Date: 2017.04.06 16:31:29 -06:00



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Billings, MT 800.735.4489 • Casper, WY 888.235.0515
Gillette, WY 866.686.7175 • Helena, MT 877.472.0711

CLIENT: Colorado Analytical Laboratories Inc
Project: 170324007 Sterling Ranch MD
Work Order: C17030850

Report Date: 04/06/17

CASE NARRATIVE

Tests associated with analyst identified as ELI-B were subcontracted to Energy Laboratories, 1120 S. 27th St., Billings, MT, EPA Number MT00005.



LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Colorado Analytical Laboratories Inc
Project: 170324007 Sterling Ranch MD
Lab ID: C17030850-001
Client Sample ID: 170324007 Sterling Ranch MD

Report Date: 04/06/17
Collection Date: 03/23/17 08:03
Date Received: 03/28/17
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
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VOCS BY AZEOTROPIC DISTILLATION

1,4-Dioxane	ND	ug/L		1.0		SW8260M	04/06/17 09:34 / eli-b
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- Analysis by direct aqueous injection of the sample distillate. A deuterated version of 1,4-Dioxane was added to the sample prior to distillation and used to quantitate the 1,4-Dioxane and account for any variations in the analysis or distillation.

VOLATILE ORGANIC COMPOUNDS

Acetone	ND	ug/L		20		E624	03/31/17 16:09 / eli-b
Acetonitrile	ND	ug/L		20		E624	03/31/17 16:09 / eli-b
Acrolein	ND	ug/L		20		E624	03/31/17 16:09 / eli-b
Acrylonitrile	ND	ug/L		20		E624	03/31/17 16:09 / eli-b
Benzene	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Bromobenzene	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Bromochloromethane	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Bromodichloromethane	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Bromoform	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Bromomethane	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Carbon disulfide	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Carbon tetrachloride	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Chlorobenzene	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Chlorodibromomethane	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Chloroethane	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
2-Chloroethyl vinyl ether	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Chloroform	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Chloromethane	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
2-Chlorotoluene	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
4-Chlorotoluene	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
1,2-Dibromoethane	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Dibromomethane	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
1,2-Dichlorobenzene	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
1,3-Dichlorobenzene	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
1,4-Dichlorobenzene	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Dichlorodifluoromethane	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
1,1-Dichloroethane	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
1,2-Dichloroethane	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
1,1-Dichloroethene	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
cis-1,2-Dichloroethene	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
trans-1,2-Dichloroethene	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
1,2-Dichloropropane	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
1,3-Dichloropropane	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
2,2-Dichloropropane	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
1,1-Dichloropropene	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
cis-1,3-Dichloropropene	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
trans-1,3-Dichloropropene	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Ethylbenzene	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Colorado Analytical Laboratories Inc
Project: 170324007 Sterling Ranch MD
Lab ID: C17030850-001
Client Sample ID: 170324007 Sterling Ranch MD

Report Date: 04/06/17
Collection Date: 03/23/17 08:03
Date Received: 03/28/17
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (MTBE)	ND	ug/L		2.0		E624	03/31/17 16:09 / eli-b
Methyl ethyl ketone	ND	ug/L		20		E624	03/31/17 16:09 / eli-b
Methyl isobutyl ketone	ND	ug/L		10		E624	03/31/17 16:09 / eli-b
Methylene chloride	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Naphthalene	ND	ug/L		0.50		E624	03/31/17 16:09 / eli-b
Styrene	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Tetrachloroethene	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
1,1,1,2-Tetrachloroethane	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Toluene	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Trichloroethene	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
1,1,1-Trichloroethane	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
1,1,2-Trichloroethane	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Trichlorofluoromethane	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
1,2,3-Trichloropropane	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Vinyl Acetate	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Vinyl chloride	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
m+p-Xylenes	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
o-Xylene	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Xylenes, Total	ND	ug/L		1.0		E624	03/31/17 16:09 / eli-b
Surr: 1,2-Dichloroethane-d4	105	%REC		71-139		E624	03/31/17 16:09 / eli-b
Surr: p-Bromofluorobenzene	102	%REC		80-127		E624	03/31/17 16:09 / eli-b
Surr: Toluene-d8	92.0	%REC		80-123		E624	03/31/17 16:09 / eli-b

SEMI-VOLATILE ORGANIC COMPOUNDS

Acenaphthene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Acenaphthylene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Anthracene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Azobenzene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Benzidine	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Benzo(a)anthracene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Benzo(a)pyrene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Benzo(b)fluoranthene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Benzo(g,h,i)perylene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Benzo(k)fluoranthene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
4-Bromophenyl phenyl ether	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Butylbenzylphthalate	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
4-Chloro-3-methylphenol	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
bis(-2-chloroethoxy)Methane	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
bis(-2-chloroethyl)Ether	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
bis(2-chloroisopropyl)Ether	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
2-Chloronaphthalene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
2-Chlorophenol	ND	ug/L		10		E625	03/30/17 17:14 / eli-b

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Colorado Analytical Laboratories Inc
Project: 170324007 Sterling Ranch MD
Lab ID: C17030850-001
Client Sample ID: 170324007 Sterling Ranch MD

Report Date: 04/06/17
Collection Date: 03/23/17 08:03
Date Received: 03/28/17
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SEMI-VOLATILE ORGANIC COMPOUNDS							
4-Chlorophenyl phenyl ether	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Chrysene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Diethyl phthalate	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Di-n-butyl phthalate	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
1,2-Dichlorobenzene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
1,3-Dichlorobenzene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
1,4-Dichlorobenzene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
3,3'-Dichlorobenzidine	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
2,4-Dichlorophenol	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Dimethyl phthalate	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Di-n-octyl phthalate	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Dibenzo(a,h)anthracene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
2,4-Dimethylphenol	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
4,6-Dinitro-2-methylphenol	ND	ug/L		50		E625	03/30/17 17:14 / eli-b
2,4-Dinitrophenol	ND	ug/L		50		E625	03/30/17 17:14 / eli-b
2,4-Dinitrotoluene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
2,6-Dinitrotoluene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
bis(2-ethylhexyl)Phthalate	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Fluoranthene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Fluorene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Hexachlorobenzene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Hexachlorobutadiene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Hexachlorocyclopentadiene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Hexachloroethane	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Indeno(1,2,3-cd)pyrene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Isophorone	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
n-Nitrosodimethylamine	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
n-Nitroso-di-n-propylamine	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
n-Nitrosodiphenylamine	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
2-Nitrophenol	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
4-Nitrophenol	ND	ug/L		50		E625	03/30/17 17:14 / eli-b
Naphthalene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Nitrobenzene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Pentachlorophenol	ND	ug/L		50		E625	03/30/17 17:14 / eli-b
Phenanthrene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Phenol	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Pyrene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
1,2,4-Trichlorobenzene	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
2,4,6-Trichlorophenol	ND	ug/L		10		E625	03/30/17 17:14 / eli-b
Surr: 2-Fluorobiphenyl	61.0	%REC		28-107		E625	03/30/17 17:14 / eli-b
Surr: 2-Fluorophenol	39.0	%REC		20-56		E625	03/30/17 17:14 / eli-b
Surr: Nitrobenzene-d5	63.0	%REC		32-94		E625	03/30/17 17:14 / eli-b
Surr: Phenol-d5	27.0	%REC		19-45		E625	03/30/17 17:14 / eli-b

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Colorado Analytical Laboratories Inc
Project: 170324007 Sterling Ranch MD
Lab ID: C17030850-001
Client Sample ID: 170324007 Sterling Ranch MD

Report Date: 04/06/17
Collection Date: 03/23/17 08:03
Date Received: 03/28/17
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SEMI-VOLATILE ORGANIC COMPOUNDS							
Surr: Terphenyl-d14	70.0	%REC		32-122		E625	03/30/17 17:14 / eli-b
Surr: 2,4,6-Tribromophenol	68.0	%REC		21-130		E625	03/30/17 17:14 / eli-b

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc

Report Date: 04/06/17

Project: 170324007 Sterling Ranch MD

Work Order: C17030850

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E624							Analytical Run: R277281		
Lab ID: ccv033117	Continuing Calibration Verification Standard						03/31/17 08:45		
Acetone	58.0	ug/L	20	116	70	130			
Acetonitrile	56.4	ug/L	20	113	70	130			
Acrolein	56.4	ug/L	20	113	70	130			
Acrylonitrile	49.6	ug/L	20	99	70	130			
Benzene	5.08	ug/L	0.50	102	70	130			
Bromobenzene	5.04	ug/L	0.50	101	70	130			
Bromochloromethane	5.36	ug/L	0.50	107	70	130			
Bromodichloromethane	4.92	ug/L	0.50	98	70	130			
Bromoform	5.04	ug/L	0.50	101	70	130			
Bromomethane	4.28	ug/L	0.50	86	70	130			
Carbon disulfide	5.32	ug/L	0.50	106	70	130			
Carbon tetrachloride	5.80	ug/L	0.50	116	70	130			
Chlorobenzene	4.56	ug/L	0.50	91	70	130			
Chlorodibromomethane	5.04	ug/L	0.50	101	70	130			
Chloroethane	4.80	ug/L	0.50	96	70	130			
2-Chloroethyl vinyl ether	2.90	ug/L	1.0	58	70	130			S
Chloroform	5.60	ug/L	0.50	112	70	130			
Chloromethane	3.82	ug/L	0.50	76	70	130			
2-Chlorotoluene	5.00	ug/L	0.50	100	70	130			
4-Chlorotoluene	5.44	ug/L	0.50	109	70	130			
1,2-Dibromoethane	4.68	ug/L	0.50	94	70	130			
Dibromomethane	4.96	ug/L	0.50	99	70	130			
1,2-Dichlorobenzene	5.04	ug/L	0.50	101	70	130			
1,3-Dichlorobenzene	5.16	ug/L	0.50	103	70	130			
1,4-Dichlorobenzene	5.00	ug/L	0.50	100	70	130			
Dichlorodifluoromethane	5.20	ug/L	0.50	104	70	130			
1,1-Dichloroethane	4.96	ug/L	0.50	99	70	130			
1,2-Dichloroethane	6.24	ug/L	0.50	125	70	130			
1,1-Dichloroethene	5.12	ug/L	0.50	102	70	130			
cis-1,2-Dichloroethene	4.76	ug/L	0.50	95	70	130			
trans-1,2-Dichloroethene	5.00	ug/L	0.50	100	70	130			
1,2-Dichloropropane	4.88	ug/L	0.50	98	70	130			
1,3-Dichloropropane	4.88	ug/L	0.50	98	70	130			
2,2-Dichloropropane	5.72	ug/L	0.50	114	70	130			
1,1-Dichloropropene	5.44	ug/L	0.50	109	70	130			
cis-1,3-Dichloropropene	4.80	ug/L	0.50	96	70	130			
trans-1,3-Dichloropropene	4.84	ug/L	0.50	97	70	130			
Ethylbenzene	4.88	ug/L	0.50	98	70	130			
Methyl tert-butyl ether (MTBE)	5.20	ug/L	0.50	104	70	130			
Methyl ethyl ketone	54.0	ug/L	20	108	70	130			
Methyl isobutyl ketone	50.4	ug/L	20	101	70	130			
Methylene chloride	5.88	ug/L	0.50	118	70	130			
Naphthalene	5.08	ug/L	0.50	102	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.



QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc
Project: 170324007 Sterling Ranch MD

Report Date: 04/06/17
Work Order: C17030850

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E624							Analytical Run: R277281		
Lab ID: ccv033117	Continuing Calibration Verification Standard							03/31/17 08:45	
Styrene	4.52	ug/L	0.50	90	70	130			
Tetrachloroethene	4.68	ug/L	0.50	94	70	130			
1,1,1,2-Tetrachloroethane	4.72	ug/L	0.50	94	70	130			
1,1,2,2-Tetrachloroethane	4.96	ug/L	0.50	99	70	130			
Toluene	4.76	ug/L	0.50	95	70	130			
Trichloroethene	4.92	ug/L	0.50	98	70	130			
1,1,1-Trichloroethane	5.72	ug/L	0.50	114	70	130			
1,1,2-Trichloroethane	4.72	ug/L	0.50	94	70	130			
Trichlorofluoromethane	4.88	ug/L	0.50	98	70	130			
1,2,3-Trichloropropane	5.24	ug/L	0.50	105	70	130			
Vinyl Acetate	5.32	ug/L	1.0	106	70	130			
Vinyl chloride	4.60	ug/L	0.50	92	70	130			
m+p-Xylenes	9.32	ug/L	0.50	93	70	130			
o-Xylene	4.52	ug/L	0.50	90	70	130			
Xylenes, Total	13.8	ug/L	0.50	92	70	130			
Surr: 1,2-Dichloroethane-d4			0.50	107	71	139			
Surr: p-Bromofluorobenzene			0.50	102	80	127			
Surr: Toluene-d8			0.50	91	80	123			

Method: E624							Batch: R277281		
Lab ID: lcs033117	Laboratory Control Sample					Run: 5971A.l_170331A	03/31/17 09:19		
Acetone	56.0	ug/L	20	112	55	144			
Acetonitrile	56.8	ug/L	20	114	54	142			
Acrolein	42.4	ug/L	20	85	16	233			
Acrylonitrile	48.4	ug/L	20	97	76	127			
Benzene	4.92	ug/L	0.50	98	73	122			
Bromobenzene	4.96	ug/L	0.50	99	74	129			
Bromochloromethane	5.16	ug/L	0.50	103	66	120			
Bromodichloromethane	5.16	ug/L	0.50	103	74	128			
Bromoform	5.12	ug/L	0.50	102	66	128			
Bromomethane	4.76	ug/L	0.50	95	51	123			
Carbon disulfide	5.36	ug/L	0.50	107	46	145			
Carbon tetrachloride	5.72	ug/L	0.50	114	75	125			
Chlorobenzene	4.64	ug/L	0.50	93	80	123			
Chlorodibromomethane	5.32	ug/L	0.50	106	74	125			
Chloroethane	4.48	ug/L	0.50	90	59	142			
2-Chloroethyl vinyl ether	2.62	ug/L	1.0	52	36	144			
Chloroform	5.52	ug/L	0.50	110	68	124			
Chloromethane	3.77	ug/L	0.50	75	53	146			
2-Chlorotoluene	5.08	ug/L	0.50	102	75	131			
4-Chlorotoluene	5.36	ug/L	0.50	107	74	129			
1,2-Dibromoethane	4.64	ug/L	0.50	93	76	124			
Dibromomethane	5.16	ug/L	0.50	103	77	125			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc
Project: 170324007 Sterling Ranch MD

Report Date: 04/06/17
Work Order: C17030850

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E624							Batch: R277281		
Lab ID: Ics033117	Laboratory Control Sample				Run: 5971A.I_170331A		03/31/17 09:19		
1,2-Dichlorobenzene	4.96	ug/L	0.50	99	74	124			
1,3-Dichlorobenzene	5.12	ug/L	0.50	102	77	122			
1,4-Dichlorobenzene	4.96	ug/L	0.50	99	76	126			
Dichlorodifluoromethane	5.60	ug/L	0.50	112	56	146			
1,1-Dichloroethane	4.72	ug/L	0.50	94	74	133			
1,2-Dichloroethane	5.76	ug/L	0.50	115	75	129			
1,1-Dichloroethene	5.16	ug/L	0.50	103	74	132			
cis-1,2-Dichloroethene	4.88	ug/L	0.50	98	81	122			
trans-1,2-Dichloroethene	5.12	ug/L	0.50	102	79	143			
1,2-Dichloropropane	4.80	ug/L	0.50	92	75	126			
1,3-Dichloropropane	4.68	ug/L	0.50	94	71	136			
2,2-Dichloropropane	5.68	ug/L	0.50	114	68	142			
1,1-Dichloropropene	5.00	ug/L	0.50	100	70	131			
cis-1,3-Dichloropropene	4.40	ug/L	0.50	88	74	135			
trans-1,3-Dichloropropene	4.84	ug/L	0.50	97	76	149			
Ethylbenzene	4.96	ug/L	0.50	99	72	130			
Methyl tert-butyl ether (MTBE)	5.12	ug/L	0.50	102	72	120			
Methyl ethyl ketone	52.0	ug/L	20	104	45	130			
Methyl isobutyl ketone	50.8	ug/L	20	102	58	135			
Methylene chloride	6.08	ug/L	0.50	122	66	142			
Naphthalene	5.60	ug/L	0.50	112	69	124			
Styrene	4.56	ug/L	0.50	91	80	124			
Tetrachloroethene	4.72	ug/L	0.50	94	72	131			
1,1,1,2-Tetrachloroethane	4.64	ug/L	0.50	93	78	124			
1,1,2,2-Tetrachloroethane	4.76	ug/L	0.50	95	68	137			
Toluene	4.76	ug/L	0.50	95	72	135			
Trichloroethene	4.80	ug/L	0.50	96	85	126			
1,1,1-Trichloroethane	5.40	ug/L	0.50	108	63	120			
1,1,2-Trichloroethane	4.48	ug/L	0.50	90	78	124			
Trichlorofluoromethane	4.52	ug/L	0.50	90	72	120			
1,2,3-Trichloropropane	4.68	ug/L	0.50	94	64	138			
Vinyl Acetate	4.76	ug/L	1.0	95	31	124			
Vinyl chloride	4.76	ug/L	0.50	95	58	140			
m+p-Xylenes	9.08	ug/L	0.50	91	67	139			
o-Xylene	4.48	ug/L	0.50	90	74	135			
Xylenes, Total	13.6	ug/L	0.50	90	70	137			
Surr: 1,2-Dichloroethane-d4			0.50	109	71	139			
Surr: p-Bromofluorobenzene			0.50	102	80	127			
Surr: Toluene-d8			0.50	92	80	123			
Lab ID: blk033117	Method Blank				Run: 5971A.I_170331A		03/31/17 10:18		
Acetone	ND	ug/L	20						
Acetonitrile	ND	ug/L	20						

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc
Project: 170324007 Sterling Ranch MD

Report Date: 04/06/17
Work Order: C17030850

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E624							Batch: R277281		
Lab ID: blk033117	Method Blank		Run: 5971A.I_170331A				03/31/17 10:18		
Acrolein	ND	ug/L				20			
Acrylonitrile	ND	ug/L				20			
Benzene	ND	ug/L			0.50				
Bromobenzene	ND	ug/L			0.50				
Bromochloromethane	ND	ug/L			0.50				
Bromodichloromethane	ND	ug/L			0.50				
Bromoform	ND	ug/L			0.50				
Bromomethane	ND	ug/L			0.50				
Carbon disulfide	ND	ug/L			0.50				
Carbon tetrachloride	ND	ug/L			0.50				
Chlorobenzene	ND	ug/L			0.50				
Chlorodibromomethane	ND	ug/L			0.50				
Chloroethane	ND	ug/L			0.50				
2-Chloroethyl vinyl ether	ND	ug/L			1.0				
Chloroform	ND	ug/L			0.50				
Chloromethane	ND	ug/L			0.50				
2-Chlorotoluene	ND	ug/L			0.50				
4-Chlorotoluene	ND	ug/L			0.50				
1,2-Dibromoethane	ND	ug/L			0.50				
Dibromomethane	ND	ug/L			0.50				
1,2-Dichlorobenzene	ND	ug/L			0.50				
1,3-Dichlorobenzene	ND	ug/L			0.50				
1,4-Dichlorobenzene	ND	ug/L			0.50				
Dichlorodifluoromethane	ND	ug/L			0.50				
1,1-Dichloroethane	ND	ug/L			0.50				
1,2-Dichloroethane	ND	ug/L			0.50				
1,1-Dichloroethene	ND	ug/L			0.50				
cis-1,2-Dichloroethene	ND	ug/L			0.50				
trans-1,2-Dichloroethene	ND	ug/L			0.50				
1,2-Dichloropropane	ND	ug/L			0.50				
1,3-Dichloropropane	ND	ug/L			0.50				
2,2-Dichloropropane	ND	ug/L			0.50				
1,1-Dichloropropene	ND	ug/L			0.50				
cis-1,3-Dichloropropene	ND	ug/L			0.50				
trans-1,3-Dichloropropene	ND	ug/L			0.50				
Ethylbenzene	ND	ug/L			0.50				
Methyl tert-butyl ether (MTBE)	ND	ug/L			0.50				
Methyl ethyl ketone	ND	ug/L			20				
Methyl isobutyl ketone	ND	ug/L			20				
Methylene chloride	ND	ug/L			0.50				
Naphthalene	ND	ug/L			0.50				
Styrene	ND	ug/L			0.50				
Tetrachloroethene	ND	ug/L			0.50				

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc
Project: 170324007 Sterling Ranch MD

Report Date: 04/06/17
Work Order: C17030850

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E624							Batch: R277281		
Lab ID: blk033117	Method Blank		Run: 5971A.I_170331A				03/31/17 10:18		
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50						
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50						
Toluene	ND	ug/L	0.50						
Trichloroethene	ND	ug/L	0.50						
1,1,1-Trichloroethane	ND	ug/L	0.50						
1,1,2-Trichloroethane	ND	ug/L	0.50						
Trichlorofluoromethane	ND	ug/L	0.50						
1,2,3-Trichloropropane	ND	ug/L	0.50						
Vinyl Acetate	ND	ug/L	1.0						
Vinyl chloride	ND	ug/L	0.50						
m+p-Xylenes	ND	ug/L	0.50						
o-Xylene	ND	ug/L	0.50						
Xylenes, Total	ND	ug/L	0.50						
Surr: 1,2-Dichloroethane-d4			0.50	105	71	139			
Surr: p-Bromofluorobenzene			0.50	104	80	127			
Surr: Toluene-d8			0.50	92	80	123			
Lab ID: b17031875-001dms							Run: 5971A.I_170331A		
Sample Matrix Spike						03/31/17 14:12			
Acetone	378	ug/L	100	109	55	144			
Acetonitrile	274	ug/L	100	110	54	142			
Benzene	24.6	ug/L	2.5	98	73	122			
Bromobenzene	24.8	ug/L	2.5	99	74	129			
Bromochloromethane	25.2	ug/L	2.5	101	66	120			
Bromodichloromethane	26.2	ug/L	2.5	105	74	128			
Bromoform	27.0	ug/L	2.5	108	66	128			
Bromomethane	18.8	ug/L	2.5	75	51	123			
Carbon disulfide	26.4	ug/L	2.5	106	46	145			
Carbon tetrachloride	28.2	ug/L	2.5	113	75	125			
Chlorobenzene	22.8	ug/L	2.5	91	80	123			
Chlorodibromomethane	26.8	ug/L	2.5	107	74	125			
Chloroethane	20.2	ug/L	2.5	81	59	142			
Chloroform	33.2	ug/L	2.5	110	68	124			
Chloromethane	18.6	ug/L	2.5	74	53	146			
2-Chlorotoluene	24.8	ug/L	2.5	99	75	131			
4-Chlorotoluene	25.8	ug/L	2.5	103	74	129			
1,2-Dibromoethane	24.0	ug/L	2.5	96	76	124			
Dibromomethane	26.2	ug/L	2.5	105	77	125			
1,2-Dichlorobenzene	24.6	ug/L	2.5	98	74	124			
1,3-Dichlorobenzene	24.6	ug/L	2.5	98	77	122			
1,4-Dichlorobenzene	24.6	ug/L	2.5	98	76	126			
Dichlorodifluoromethane	27.0	ug/L	2.5	108	56	146			
1,1-Dichloroethane	24.2	ug/L	2.5	97	74	133			
1,2-Dichloroethane	29.2	ug/L	2.5	117	75	129			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc
Project: 170324007 Sterling Ranch MD

Report Date: 04/06/17
Work Order: C17030850

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E624							Batch: R277281		
Lab ID: b17031875-001dms	Sample Matrix Spike		Run: 5971A.I_170331A				03/31/17 14:12		
1,1-Dichloroethene	26.6	ug/L	2.5	106	74	132			
cis-1,2-Dichloroethene	24.4	ug/L	2.5	98	81	122			
trans-1,2-Dichloroethene	25.8	ug/L	2.5	103	79	143			
1,2-Dichloropropane	23.0	ug/L	2.5	92	75	126			
1,3-Dichloropropane	22.4	ug/L	2.5	90	71	136			
2,2-Dichloropropane	28.0	ug/L	2.5	112	68	142			
1,1-Dichloropropene	25.2	ug/L	2.5	101	70	131			
cis-1,3-Dichloropropene	22.2	ug/L	2.5	89	74	135			
trans-1,3-Dichloropropene	24.6	ug/L	2.5	98	76	149			
Ethylbenzene	23.6	ug/L	2.5	94	72	130			
Methyl tert-butyl ether (MTBE)	25.6	ug/L	2.5	102	72	120			
Methyl ethyl ketone	268	ug/L	100	107	45	130			
Methyl isobutyl ketone	258	ug/L	100	103	58	135			
Methylene chloride	32.2	ug/L	2.5	129	66	142			
Naphthalene	27.6	ug/L	2.5	110	69	124			
Styrene	22.4	ug/L	2.5	90	80	124			
Tetrachloroethene	22.8	ug/L	2.5	91	72	131			
1,1,1,2-Tetrachloroethane	23.0	ug/L	2.5	92	78	124			
1,1,2,2-Tetrachloroethane	26.0	ug/L	2.5	104	68	137			
Toluene	24.4	ug/L	2.5	95	72	135			
Trichloroethene	23.8	ug/L	2.5	95	85	126			
1,1,1-Trichloroethane	26.8	ug/L	2.5	107	63	120			
1,1,2-Trichloroethane	23.4	ug/L	2.5	94	78	124			
Trichlorofluoromethane	21.2	ug/L	2.5	85	72	120			
1,2,3-Trichloropropane	26.2	ug/L	2.5	105	64	138			
Vinyl Acetate	24.4	ug/L	5.0	98	31	124			
Vinyl chloride	22.6	ug/L	2.5	90	58	140			
m+p-Xylenes	44.8	ug/L	2.5	90	67	139			
o-Xylene	22.6	ug/L	2.5	90	74	135			
Xylenes, Total	67.4	ug/L	2.5	90	70	137			
Surr: 1,2-Dichloroethane-d4			2.5	110	71	139			
Surr: p-Bromofluorobenzene			2.5	102	80	127			
Surr: Toluene-d8			2.5	93	80	123			
Lab ID: b17031875-001dmsd	Sample Matrix Spike Duplicate		Run: 5971A.I_170331A				03/31/17 15:11		
Acetone	410	ug/L	100	122	55	144	8.1	20	
Acetonitrile	262	ug/L	100	105	54	142	4.5	20	
Benzene	25.0	ug/L	2.5	100	73	122	1.6	20	
Bromobenzene	25.6	ug/L	2.5	102	74	129	3.2	20	
Bromochloromethane	25.2	ug/L	2.5	101	66	120	0.0	20	
Bromodichloromethane	27.2	ug/L	2.5	109	74	128	3.7	20	
Bromoform	28.4	ug/L	2.5	114	66	128	5.1	20	
Bromomethane	20.8	ug/L	2.5	83	51	123	10	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc
Project: 170324007 Sterling Ranch MD

Report Date: 04/06/17
Work Order: C17030850

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E624							Batch: R277281		
Lab ID: b17031875-001dmsd	Sample Matrix Spike Duplicate		Run: 5971A.I_170331A				03/31/17 15:11		
Carbon disulfide	25.6	ug/L	2.5	102	46	145	3.1	20	
Carbon tetrachloride	28.6	ug/L	2.5	114	75	125	1.4	20	
Chlorobenzene	23.6	ug/L	2.5	94	80	123	3.4	20	
Chlorodibromomethane	28.0	ug/L	2.5	112	74	125	4.4	20	
Chloroethane	20.6	ug/L	2.5	82	59	142	2.0	20	
Chloroform	33.6	ug/L	2.5	111	68	124	1.2	20	
Chloromethane	19.3	ug/L	2.5	77	53	146	3.8	20	
2-Chlorotoluene	26.4	ug/L	2.5	106	75	131	6.2	20	
4-Chlorotoluene	27.2	ug/L	2.5	109	74	129	5.3	20	
1,2-Dibromoethane	24.0	ug/L	2.5	96	76	124	0.0	20	
Dibromomethane	26.8	ug/L	2.5	107	77	125	2.3	20	
1,2-Dichlorobenzene	25.8	ug/L	2.5	103	74	124	4.8	20	
1,3-Dichlorobenzene	26.0	ug/L	2.5	104	77	122	5.5	20	
1,4-Dichlorobenzene	25.4	ug/L	2.5	102	76	126	3.2	20	
Dichlorodifluoromethane	25.8	ug/L	2.5	103	56	146	4.5	20	
1,1-Dichloroethane	24.8	ug/L	2.5	99	74	133	2.4	20	
1,2-Dichloroethane	29.2	ug/L	2.5	117	75	129	0.0	20	
1,1-Dichloroethene	26.8	ug/L	2.5	107	74	132	0.7	20	
cis-1,2-Dichloroethene	25.2	ug/L	2.5	101	81	122	3.2	20	
trans-1,2-Dichloroethene	26.4	ug/L	2.5	106	79	143	2.3	20	
1,2-Dichloropropane	23.6	ug/L	2.5	94	75	126	2.6	20	
1,3-Dichloropropane	23.8	ug/L	2.5	95	71	136	6.1	20	
2,2-Dichloropropane	28.6	ug/L	2.5	114	68	142	2.1	20	
1,1-Dichloropropene	25.8	ug/L	2.5	103	70	131	2.4	20	
cis-1,3-Dichloropropene	23.2	ug/L	2.5	93	74	135	4.4	20	
trans-1,3-Dichloropropene	25.4	ug/L	2.5	102	76	149	3.2	20	
Ethylbenzene	25.0	ug/L	2.5	100	72	130	5.8	20	
Methyl tert-butyl ether (MTBE)	26.6	ug/L	2.5	106	72	120	3.8	20	
Methyl ethyl ketone	292	ug/L	100	117	45	130	8.6	20	
Methyl isobutyl ketone	286	ug/L	100	114	58	135	10	20	
Methylene chloride	31.4	ug/L	2.5	126	66	142	2.5	20	
Naphthalene	27.8	ug/L	2.5	111	69	124	0.7	20	
Styrene	22.8	ug/L	2.5	91	80	124	1.8	20	
Tetrachloroethene	23.8	ug/L	2.5	95	72	131	4.3	20	
1,1,1,2-Tetrachloroethane	23.2	ug/L	2.5	93	78	124	0.9	20	
1,1,2,2-Tetrachloroethane	27.4	ug/L	2.5	110	68	137	5.2	20	
Toluene	24.4	ug/L	2.5	95	72	135	0.0	20	
Trichloroethene	25.0	ug/L	2.5	100	85	126	4.9	20	
1,1,1-Trichloroethane	27.4	ug/L	2.5	110	63	120	2.2	20	
1,1,2-Trichloroethane	24.8	ug/L	2.5	99	78	124	5.8	20	
Trichlorofluoromethane	22.4	ug/L	2.5	90	72	120	5.5	20	
1,2,3-Trichloropropane	26.8	ug/L	2.5	107	64	138	2.3	20	
Vinyl Acetate	24.4	ug/L	5.0	98	31	124	0.0	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc
Project: 170324007 Sterling Ranch MD

Report Date: 04/06/17
Work Order: C17030850

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E624							Batch: R277281		
Lab ID: b17031875-001dmsd	Sample Matrix Spike Duplicate			Run: 5971A.I_170331A			03/31/17 15:11		
Vinyl chloride	22.8	ug/L	2.5	91	58	140	0.9	20	
m+p-Xylenes	46.0	ug/L	2.5	92	67	139	2.6	20	
o-Xylene	23.4	ug/L	2.5	94	74	135	3.5	20	
Xylenes, Total	69.4	ug/L	2.5	93	70	137			
Surr: 1,2-Dichloroethane-d4			2.5	112	71	139			
Surr: p-Bromofluorobenzene			2.5	105	80	127			
Surr: Toluene-d8			2.5	93	80	123			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc

Report Date: 04/06/17

Project: 170324007 Sterling Ranch MD

Work Order: C17030850

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E625							Batch: 107942		
Lab ID: MB-107942	Method Blank		Run: SV5973N2.I_170330B				03/30/17 16:12		
Acenaphthene	ND	ug/L							
Acenaphthylene	ND	ug/L							
Anthracene	ND	ug/L							
Azobenzene	ND	ug/L							
Benzidine	ND	ug/L							
Benzo(a)anthracene	ND	ug/L							
Benzo(a)pyrene	ND	ug/L							
Benzo(b)fluoranthene	ND	ug/L							
Benzo(g,h,i)perylene	ND	ug/L							
Benzo(k)fluoranthene	ND	ug/L							
4-Bromophenyl phenyl ether	ND	ug/L							
Butylbenzylphthalate	ND	ug/L							
4-Chloro-3-methylphenol	ND	ug/L							
bis(-2-chloroethoxy)Methane	ND	ug/L							
bis(-2-chloroethyl)Ether	ND	ug/L							
bis(2-chloroisopropyl)Ether	ND	ug/L							
2-Chloronaphthalene	ND	ug/L							
2-Chlorophenol	ND	ug/L							
4-Chlorophenyl phenyl ether	ND	ug/L							
Chrysene	ND	ug/L							
Diethyl phthalate	ND	ug/L							
Di-n-butyl phthalate	ND	ug/L							
1,2-Dichlorobenzene	ND	ug/L							
1,3-Dichlorobenzene	ND	ug/L							
1,4-Dichlorobenzene	ND	ug/L							
3,3'-Dichlorobenzidine	ND	ug/L							
2,4-Dichlorophenol	ND	ug/L							
Dimethyl phthalate	ND	ug/L							
Di-n-octyl phthalate	ND	ug/L							
Dibenzo(a,h)anthracene	ND	ug/L							
2,4-Dimethylphenol	ND	ug/L							
4,6-Dinitro-2-methylphenol	ND	ug/L							50
2,4-Dinitrophenol	ND	ug/L							50
2,4-Dinitrotoluene	ND	ug/L							10
2,6-Dinitrotoluene	ND	ug/L							10
bis(2-ethylhexyl)Phthalate	ND	ug/L							10
Fluoranthene	ND	ug/L							10
Fluorene	ND	ug/L							10
Hexachlorobenzene	ND	ug/L							10
Hexachlorobutadiene	ND	ug/L							10
Hexachlorocyclopentadiene	ND	ug/L							10
Hexachloroethane	ND	ug/L							10
Indeno(1,2,3-cd)pyrene	ND	ug/L							10

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc
Project: 170324007 Sterling Ranch MD

Report Date: 04/06/17
Work Order: C17030850

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E625							Batch: 107942		
Lab ID: MB-107942	Method Blank		Run: SV5973N2.I_170330B				03/30/17 16:12		
Isophorone	ND	ug/L	10						
n-Nitrosodimethylamine	ND	ug/L	10						
n-Nitroso-di-n-propylamine	ND	ug/L	10						
n-Nitrosodiphenylamine	ND	ug/L	10						
2-Nitrophenol	ND	ug/L	10						
4-Nitrophenol	ND	ug/L	50						
Naphthalene	ND	ug/L	10						
Nitrobenzene	ND	ug/L	10						
Pentachlorophenol	ND	ug/L	50						
Phenanthrene	ND	ug/L	10						
Phenol	ND	ug/L	10						
Pyrene	ND	ug/L	10						
1,2,4-Trichlorobenzene	ND	ug/L	10						
2,4,6-Trichlorophenol	ND	ug/L	10						
Surr: 2-Fluorobiphenyl			10	57	28	107			
Surr: 2-Fluorophenol			10	42	20	56			
Surr: Nitrobenzene-d5			10	62	32	94			
Surr: Phenol-d5			10	30	19	45			
Surr: Terphenyl-d14			10	80	32	122			
Surr: 2,4,6-Tribromophenol			10	68	21	130			
Lab ID: LCS-107942	Laboratory Control Sample		Run: SV5973N2.I_170330B				03/30/17 16:43		
Acenaphthene	89.1	ug/L	10	89	58	99			
Acenaphthylene	84.2	ug/L	10	84	57	96			
Anthracene	75.6	ug/L	10	76	60	107			
Azobenzene	78.0	ug/L	10	78	56	100			
Benzidine	53.1	ug/L	10	53	10	100			
Benzo(a)anthracene	86.4	ug/L	10	86	62	114			
Benzo(a)pyrene	84.7	ug/L	10	85	62	108			
Benzo(b)fluoranthene	89.8	ug/L	10	90	48	127			
Benzo(g,h,i)perylene	87.2	ug/L	10	87	62	121			
Benzo(k)fluoranthene	84.0	ug/L	10	84	55	111			
4-Bromophenyl phenyl ether	87.1	ug/L	10	87	58	105			
Butylbenzylphthalate	90.8	ug/L	10	91	60	113			
4-Chloro-3-methylphenol	74.6	ug/L	10	75	53	92			
bis(2-chloroethoxy)Methane	69.9	ug/L	10	70	50	92			
bis(2-chloroethyl)Ether	72.1	ug/L	10	72	44	82			
bis(2-chloroisopropyl)Ether	63.2	ug/L	10	63	56	87			
2-Chloronaphthalene	84.9	ug/L	10	85	56	95			
2-Chlorophenol	67.2	ug/L	10	67	47	76			
4-Chlorophenyl phenyl ether	83.0	ug/L	10	83	58	99			
Chrysene	87.0	ug/L	10	87	63	106			
Diethyl phthalate	84.6	ug/L	10	85	58	103			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc
Project: 170324007 Sterling Ranch MD

Report Date: 04/06/17
Work Order: C17030850

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E625							Batch: 107942		
Lab ID: LCS-107942	Laboratory Control Sample				Run: SV5973N2.I_170330B		03/30/17 16:43		
Di-n-butyl phthalate	87.1	ug/L	10	87	61	110			
1,2-Dichlorobenzene	69.3	ug/L	10	69	43	81			
1,3-Dichlorobenzene	64.0	ug/L	10	64	41	79			
1,4-Dichlorobenzene	64.5	ug/L	10	64	42	79			
3,3'-Dichlorobenzidine	64.8	ug/L	10	65	51	93			
2,4-Dichlorophenol	70.6	ug/L	10	71	49	90			
Dimethyl phthalate	82.5	ug/L	10	82	58	104			
Di-n-octyl phthalate	93.4	ug/L	10	93	56	110			
Dibenzo(a,h)anthracene	87.8	ug/L	10	88	61	111			
2,4-Dimethylphenol	66.2	ug/L	10	66	45	89			
4,6-Dinitro-2-methylphenol	66.1	ug/L	50	66	37	105			
2,4-Dinitrophenol	54.1	ug/L	50	54	27	81			
2,4-Dinitrotoluene	86.2	ug/L	10	86	63	110			
2,6-Dinitrotoluene	77.2	ug/L	10	77	60	107			
bis(2-ethylhexyl)Phthalate	86.0	ug/L	10	86	56	108			
Fluoranthene	84.2	ug/L	10	84	63	110			
Fluorene	89.3	ug/L	10	89	60	99			
Hexachlorobenzene	82.7	ug/L	10	83	57	103			
Hexachlorobutadiene	71.7	ug/L	10	72	39	83			
Hexachlorocyclopentadiene	81.0	ug/L	10	81	39	91			
Hexachloroethane	65.0	ug/L	10	65	37	75			
Indeno(1,2,3-cd)pyrene	83.2	ug/L	10	83	59	109			
Isophorone	69.8	ug/L	10	70	42	102			
n-Nitrosodimethylamine	36.8	ug/L	10	37	20	45			
n-Nitroso-di-n-propylamine	76.6	ug/L	10	77	49	98			
n-Nitrosodiphenylamine	91.5	ug/L	10	92	61	108			
2-Nitrophenol	72.3	ug/L	10	72	51	96			
4-Nitrophenol	27.4	ug/L	50	27	15	36			
Naphthalene	68.1	ug/L	10	68	48	96			
Nitrobenzene	77.9	ug/L	10	78	51	91			
Pentachlorophenol	72.4	ug/L	50	72	53	109			
Phenanthrene	82.0	ug/L	10	82	58	104			
Phenol	40.6	ug/L	10	41	27	45			
Pyrene	85.0	ug/L	10	85	64	108			
1,2,4-Trichlorobenzene	71.2	ug/L	10	71	49	85			
2,4,6-Trichlorophenol	73.9	ug/L	10	74	47	99			
Surr: 2-Fluorobiphenyl			10	69	28	107			
Surr: 2-Fluorophenol			10	42	20	56			
Surr: Nitrobenzene-d5			10	72	32	94			
Surr: Phenol-d5			10	36	19	45			
Surr: Terphenyl-d14			10	80	32	122			
Surr: 2,4,6-Tribromophenol			10	70	21	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc
Project: 170324007 Sterling Ranch MD

Report Date: 04/06/17
Work Order: C17030850

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E625							Batch: 107942		
Lab ID: C17030850-001CMS	Sample Matrix Spike		Run: SV5973N2.I_170330B				03/30/17 17:45		
Acenaphthene	86.7	ug/L	10	87	58	99			
Acenaphthylene	75.5	ug/L	10	76	57	96			
Anthracene	81.6	ug/L	10	82	60	107			
Azobenzene	84.6	ug/L	10	85	56	100			
Benzidine	122	ug/L	20	122	10	100			S
Benzo(a)anthracene	83.4	ug/L	10	83	62	114			
Benzo(a)pyrene	78.4	ug/L	10	78	62	108			
Benzo(b)fluoranthene	79.9	ug/L	10	80	48	127			
Benzo(g,h,i)perylene	83.2	ug/L	10	83	62	121			
Benzo(k)fluoranthene	84.5	ug/L	10	84	55	111			
4-Bromophenyl phenyl ether	79.5	ug/L	10	79	58	105			
Butylbenzylphthalate	89.2	ug/L	10	89	60	113			
4-Chloro-3-methylphenol	78.3	ug/L	10	78	53	92			
bis(-2-chloroethoxy)Methane	77.9	ug/L	10	78	50	92			
bis(-2-chloroethyl)Ether	71.5	ug/L	10	71	44	82			
bis(2-chloroisopropyl)Ether	58.4	ug/L	10	58	56	87			
2-Chloronaphthalene	77.6	ug/L	10	78	56	95			
2-Chlorophenol	63.7	ug/L	10	64	47	76			
4-Chlorophenyl phenyl ether	81.0	ug/L	10	81	58	99			
Chrysene	85.9	ug/L	10	86	63	106			
Diethyl phthalate	84.0	ug/L	10	84	58	103			
Di-n-butyl phthalate	87.0	ug/L	10	87	61	110			
1,2-Dichlorobenzene	67.3	ug/L	10	67	43	81			
1,3-Dichlorobenzene	66.0	ug/L	10	66	41	79			
1,4-Dichlorobenzene	66.7	ug/L	10	67	42	79			
3,3'-Dichlorobenzidine	131	ug/L	10	131	51	93			S
2,4-Dichlorophenol	70.0	ug/L	10	70	49	90			
Dimethyl phthalate	79.3	ug/L	10	79	58	104			
Di-n-octyl phthalate	81.8	ug/L	10	82	56	110			
Dibenzo(a,h)anthracene	80.1	ug/L	10	80	61	111			
2,4-Dimethylphenol	70.7	ug/L	10	71	45	87			
4,6-Dinitro-2-methylphenol	53.1	ug/L	50	53	37	105			
2,4-Dinitrophenol	43.0	ug/L	50	43	27	81			
2,4-Dinitrotoluene	85.6	ug/L	10	86	63	110			
2,6-Dinitrotoluene	81.5	ug/L	10	81	60	107			
bis(2-ethylhexyl)Phthalate	77.5	ug/L	10	77	56	108			
Fluoranthene	84.0	ug/L	10	84	63	110			
Fluorene	80.0	ug/L	10	80	60	99			
Hexachlorobenzene	78.2	ug/L	10	78	57	103			
Hexachlorobutadiene	69.1	ug/L	10	69	39	83			
Hexachlorocyclopentadiene	69.0	ug/L	10	69	39	91			
Hexachloroethane	62.6	ug/L	10	63	37	75			
Indeno(1,2,3-cd)pyrene	76.3	ug/L	10	76	59	109			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.



QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc

Report Date: 04/06/17

Project: 170324007 Sterling Ranch MD

Work Order: C17030850

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E625							Batch: 107942		
Lab ID: C17030850-001CMS	Sample Matrix Spike		Run: SV5973N2.I_170330B				03/30/17 17:45		
Isophorone	71.4	ug/L	10	71	42	102			
n-Nitrosodimethylamine	26.1	ug/L	10	26	20	45			
n-Nitroso-di-n-propylamine	76.1	ug/L	10	76	49	98			
n-Nitrosodiphenylamine	105	ug/L	10	105	61	108			
2-Nitrophenol	73.5	ug/L	10	74	51	96			
4-Nitrophenol	25.8	ug/L	50	26	15	36			
Naphthalene	75.6	ug/L	10	76	48	96			
Nitrobenzene	75.6	ug/L	10	76	51	91			
Pentachlorophenol	60.3	ug/L	50	60	53	109			
Phenanthrene	83.8	ug/L	10	84	58	104			
Phenol	38.7	ug/L	10	39	27	45			
Pyrene	87.0	ug/L	10	87	64	108			
1,2,4-Trichlorobenzene	74.7	ug/L	10	75	49	85			
2,4,6-Trichlorophenol	68.8	ug/L	10	69	47	99			
Surr: 2-Fluorobiphenyl			10	51	28	107			
Surr: 2-Fluorophenol			10	41	20	56			
Surr: Nitrobenzene-d5			10	64	32	94			
Surr: Phenol-d5			10	33	19	45			
Surr: Terphenyl-d14			10	73	32	122			
Surr: 2,4,6-Tribromophenol			10	67	21	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc

Report Date: 04/06/17

Project: 170324007 Sterling Ranch MD

Work Order: C17030850

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E625							Analytical Run: R277253		
Lab ID: 30-Mar-17_CCV_11	Continuing Calibration Verification Standard						03/30/17 15:40		
Acenaphthene	75.3	ug/L	10	100	80	120			
Acenaphthylene	79.7	ug/L	10	106	80	120			
Anthracene	75.2	ug/L	10	100	80	120			
Azobenzene	75.1	ug/L	10	100	80	120			
Benzidine	70.6	ug/L	10	94	80	120			
Benzo(a)anthracene	76.3	ug/L	10	102	80	120			
Benzo(a)pyrene	81.9	ug/L	10	109	80	120			
Benzo(b)fluoranthene	78.3	ug/L	10	104	80	120			
Benzo(g,h,i)perylene	78.0	ug/L	10	104	80	120			
Benzo(k)fluoranthene	81.6	ug/L	10	109	80	120			
4-Bromophenyl phenyl ether	81.6	ug/L	10	109	80	120			
Butylbenzylphthalate	78.0	ug/L	10	104	80	120			
4-Chloro-3-methylphenol	76.0	ug/L	10	101	80	120			
bis(2-chloroethoxy)Methane	70.4	ug/L	10	94	80	120			
bis(2-chloroethyl)Ether	77.2	ug/L	10	103	80	120			
bis(2-chloroisopropyl)Ether	76.7	ug/L	10	102	80	120			
2-Chloronaphthalene	79.8	ug/L	10	106	80	120			
2-Chlorophenol	72.7	ug/L	10	97	80	120			
4-Chlorophenyl phenyl ether	72.7	ug/L	10	97	80	120			
Chrysene	74.9	ug/L	10	100	80	120			
Diethyl phthalate	76.8	ug/L	10	102	80	120			
Di-n-butyl phthalate	76.9	ug/L	10	102	80	120			
1,2-Dichlorobenzene	76.8	ug/L	10	102	80	120			
1,3-Dichlorobenzene	72.1	ug/L	10	96	80	120			
1,4-Dichlorobenzene	74.8	ug/L	10	100	80	120			
3,3'-Dichlorobenzidine	76.2	ug/L	10	102	80	120			
2,4-Dichlorophenol	73.5	ug/L	10	98	80	120			
Dimethyl phthalate	77.0	ug/L	10	103	80	120			
Di-n-octyl phthalate	81.2	ug/L	10	108	80	120			
Dibenzo(a,h)anthracene	76.2	ug/L	10	102	80	120			
2,4-Dimethylphenol	70.3	ug/L	10	94	80	120			
4,6-Dinitro-2-methylphenol	77.4	ug/L	50	103	80	120			
2,4-Dinitrophenol	80.2	ug/L	50	107	80	120			
2,4-Dinitrotoluene	79.8	ug/L	10	106	80	120			
2,6-Dinitrotoluene	80.8	ug/L	10	108	80	120			
bis(2-ethylhexyl)Phthalate	77.3	ug/L	10	103	80	120			
Fluoranthene	76.8	ug/L	10	102	80	120			
Fluorene	82.8	ug/L	10	110	80	120			
Hexachlorobenzene	74.2	ug/L	10	99	80	120			
Hexachlorobutadiene	73.0	ug/L	10	97	80	120			
Hexachlorocyclopentadiene	79.2	ug/L	10	106	80	120			
Hexachloroethane	74.4	ug/L	10	99	80	120			
Indeno(1,2,3-cd)pyrene	73.3	ug/L	10	98	80	120			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



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QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc
Project: 170324007 Sterling Ranch MD

Report Date: 04/06/17
Work Order: C17030850

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E625									Analytical Run: R277253
Lab ID: 30-Mar-17_CCV_11	Continuing Calibration Verification Standard								03/30/17 15:40
Isophorone	71.5	ug/L	10	95	80	120			
n-Nitrosodimethylamine	79.5	ug/L	10	106	80	120			
n-Nitroso-di-n-propylamine	76.0	ug/L	10	101	80	120			
n-Nitrosodiphenylamine	77.5	ug/L	10	103	80	120			
2-Nitrophenol	74.6	ug/L	10	99	80	120			
4-Nitrophenol	72.4	ug/L	50	97	80	120			
Naphthalene	68.4	ug/L	10	91	80	120			
Nitrobenzene	77.1	ug/L	10	103	80	120			
Pentachlorophenol	71.7	ug/L	50	96	80	120			
Phenanthrene	70.9	ug/L	10	95	80	120			
Phenol	79.0	ug/L	10	105	80	120			
Pyrene	79.0	ug/L	10	105	80	120			
1,2,4-Trichlorobenzene	73.1	ug/L	10	98	80	120			
2,4,6-Trichlorophenol	71.0	ug/L	10	95	80	120			
Surr: 2-Fluorobiphenyl			10	108	80	120			
Surr: 2-Fluorophenol			10	105	80	120			
Surr: Nitrobenzene-d5			10	101	80	120			
Surr: Phenol-d5			10	102	80	120			
Surr: Terphenyl-d14			10	104	80	120			
Surr: 2,4,6-Tribromophenol			10	105	80	120			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc
Project: 170324007 Sterling Ranch MD

Report Date: 04/06/17
Work Order: C17030850

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
Method: SW8260M								Analytical Run: 108173		
Lab ID: CCV-108173	Continuing Calibration Verification Standard							04/06/17 08:29		
1,4-Dioxane	95.7	ug/L	1.0	96	80	120				
Method: SW8260M								Batch: 108173		
Lab ID: LCS-108173	Laboratory Control Sample							Run: VOA5973A.I_170406A 04/06/17 08:51		
1,4-Dioxane	87.5	ug/L	1.0	88	70	130				
Lab ID: MB-108173	Method Blank							Run: VOA5973A.I_170406A 04/06/17 09:12		
1,4-Dioxane	ND	ug/L	1.0							
Lab ID: C17030850-001AMS	Sample Matrix Spike							Run: VOA5973A.I_170406A 04/06/17 09:55		
1,4-Dioxane	194	ug/L	2.0	97	70	130				
Lab ID: C17030850-001AMSD	Sample Matrix Spike Duplicate							Run: VOA5973A.I_170406A 04/06/17 10:17		
1,4-Dioxane	206	ug/L	2.0	103	70	130	6.0	20		

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



Work Order Receipt Checklist

Colorado Analytical Laboratories Inc

C17030850

Login completed by: Corinne Wagner

Date Received: 3/28/2017

Reviewed by: Kasey Vidick

Received by: ckw

Reviewed Date: 3/29/2017

Carrier name: Ground

- Shipping container/cooler in good condition? Yes No Not Present
- Custody seals intact on all shipping container(s)/cooler(s)? Yes No Not Present
- Custody seals intact on all sample bottles? Yes No Not Present
- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Samples in proper container/bottle? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No
- All samples received within holding time?
(Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.) Yes No
- Temp Blank received in all shipping container(s)/cooler(s)? Yes No Not Applicable
- Container/Temp Blank temperature: 6.6°C On Ice - From Field
- Water - VOA vials have zero headspace? Yes No No VOA vials submitted
- Water - pH acceptable upon receipt? Yes No Not Applicable

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as -dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

Contact and Corrective Action Comments:

None



APPENDIX F

FAWA WATER SUPPLY VS CURRENT WATER COMMITMENTS



Appendix F
 Falcon Area Water and Wastewater Authority
 Commitments within FAWWA Service Area
 Update August 11, 2023

Analysis of Water Commitments								Volumetric Commitment (300 year--Acre-feet)
Development	Preliminary Commitments			Final Commitments				
	Commitment SFE	Supply / Commitment Acre-Feet	Letter or Summary Date/Notes	Commitment SFE	Commitment Acre-Feet	Letter or Summary Date/Notes		
Commitments	The Retreat at TimberRidge Preliminary Plan (Central System Only)	167	58.951	April 2018 Report Supplement Nov 2020				17685.3
	Final #1 Final #2 Final #3				59 SFE 78 SFE 30 SFE	20.827 27.53 10.59	23-Aug-20 April 30,2021 July, 2022 (reissued May 15, 2023)	
Commitments	Sterling Ranch Preliminary Plan Phase One	726	255.96	June 2015 Report/Summary Update February 2019				
	Sterling Ranch Filing #1				0	0	Tracts Only	
	Tract BB (10.545) Branding Iron at Sterling Ranch Filing No. 1 Branding Iron Filing No. 2				51 88	17.85 31.07	Summary and Letter Revised Feb 20, 2020 Residential)	5355.0 9321.0
	Sterling Ranch Filing #2 (49 SF lots with 4.29 AF landscaping)				61 (61 SFE w irrigation)	21.59	Includes 4.29 AF Irrigation Revised Jan 21, 2021	6477.0
	Sterling Ranch Filing No 5	72	24.26				Previously Tract B Branding Iron N2	7278.0
	Tract G (19.574) Homestead at Sterling Ranch Filing No. 1 Tract E (29.658) Homestead at Sterling Ranch Filing No. 2 Homestead at Sterling Ranch Filing No 3 (Vacation and Replat)			March 31, 2023 Letter	72 104 -2	25.42 36.71 -0.71	25-Sep-19 6-Mar-23	7624.8 11013.6 -211.5
	Copper Chase at Sterling Ranch resubmittal	142.9	50.45	17-Dec-21	147.68	52.13	October 12, 2022 138 single family lots includes 1.39 Ac Park additional irrigation	15639.0
	Sterling Ranch Preliminary Plan Phase Two	214.5	75.719	July, 2020 Re-issue Feb 26, 2021			School commitment (13 SFE) contained in Branding Iron Filing #2 above	22715.6
	Sterling Ranch Filing #4				159 Lots (2.667 Acres Irrigation) Specific Note 1	51.91		
	Homestead North at Sterling Ranch Preliminary Plan	147	62.47	Letter November 4, 2020 includes 10.58 AFs irrigation Update Letter Jan 21, 2021			Letter November 4, 2020 includes 10.58 AFs irrigation Update Letter Jan 21, 2021	18741.0
	Homestead North at Sterling Ranch Filing No. 3	77 (5.65 acres irrigation)	41.31	Letter dated June 10, 2022 updated November 3, 2022				12393.0
	Foursquare at Sterling Ranch PUD Preliminary Plan	158 High Density Units (1.424 acres irrigation)	50.73	Letter dated June 10, 2022 Update November 3, 2022				15219.0
	Villages at Sterling Ranch East PUD and Preliminary Plan	246 High Density Units (1.934 acres irrigation)	67.58	Letter dated June 10, 2022 Updated December 16, 2022				20274.0
	Sterling Ranch East Preliminary Phase One	761 (28.31 acres irrigation) 35 acre K-8 School	335.68	Letter dated June 10, 2022 Revision October 18, 2022			Note prior commitment for elementary school in Branding Iron No 2	100704.0
Sterling Ranch East Filing No 1				294 SFE, 18.809 acres irrigated	144.15	Letter dated November 15, 2022		
Sterling Ranch East Filing 1A				42 lots; 1.088 acres irrigation	16.85	Letter dated November 15, 2022		
Sterling Ranch East Preliminary Filing 5	160 (plus 2.42 AF Irrigation)	57.08	Letter dated August 11, 2023				17124	
Totals	Total Findings at Preliminary			Total Findings at Final				
	Units	AF		Units	AF			
	1930.5	773.78		523.7	184.063		287352.8	
					Total Active Commitments (AF)		957.84	

Specific Note 1; Lots 147 -157 were previously platted as lots 22-32 Sterling Ranch Filing No. 2 Water was committed under Sterling Ranch Filing No 2

General Note 1. As of January 1, 2022 the Falcon Area Water and Wastewater Authority is managing all water among various Districts, who are participating agencies. Therefore, water accounting changes were adopted on January 1, that do not separately balance or account for separate water accounting within the respective area. Going forward, the commitment sheet will be streamlined by simply adding the total commitments across the FAWWA participating entities.

General Note 2; Sketch Plans do not have hard commitments and are not shown here. Subdivisions can either have a finding of sufficiency at preliminary or final plat stage. Water reports/commitments are sometimes submitted at both stages, even though sufficiency might be achieved at different stages. In order to attempt to track this possible discrepancy we will show the active water commitment in yellow highlight as best as possible. Summation of active water

General Note 3; Yellow highlight signifies applicable commitments, where commitments have been over-riden, changed or modified and are no longer active, they are not highlighted in yellow

General Note 4; March 6, 2023 was a vacation and replat within Homestead at Sterling Ranch No 2 resulting in a net loss of 2 lots, therefore a negative allocation has been applied

APPENDIX G

WATER SUPPLY SUMMARY FORM



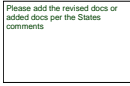
WATER SUPPLY INFORMATION SUMMARY

Section 30-28-133(d), C.R.S. requires that the applicant submit to the County, "Adequate evidence that a Water supply that is sufficient in terms of quantity, quality, and dependability will be available to ensure an adequate supply of water"

1. NAME OF DEVELOPMENT AS PROPOSED		<u>Sterling Ranch East Filing 5</u>	
2. LAND USE ACTION		<u>Preliminary Plan</u>	
3. NAME OF EXISTING PARCEL AS RECORDED		<u>N/A</u>	
SUBDIVISION	<u>See Above</u>	FILING	<u>Filing 5</u>
BLOCK	<u>All</u>	Lot	<u>All</u>
4. TOTAL ACERAGE	<u>47.168</u>	5. NUMBER OF LOTS PROPOSED	<u>160</u>
PLAT MAPS ENCLOSED		<input type="checkbox"/> YES <u>Preliminary Plan Separate Cover</u>	
6. PARCEL HISTORY - Please attach copies of deeds, plats, or other evidence or documentation. (In submittal package)			
A. Was parcel recorded with county prior to June 1, 1972?		<input checked="" type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
B. Has the parcel ever been part of a division of land action since June 1, 1972?		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
If yes, describe the previous action			
7. LOCATION OF PARCEL - Include a map delineating the project area and tie to a section corner. (In submittal)			
<u> </u> portions OF <u> </u> SECTION <u>33 and 34</u>		TOWNSHIP <u>12</u>	
		<input type="checkbox"/> N <input checked="" type="checkbox"/> S RANGE <u>65</u> <input type="checkbox"/> E <input checked="" type="checkbox"/> W	
OF 1SECTION TOWNSHIP _____			
PRINCIPAL MERIDIAN: <input checked="" type="checkbox"/> 6TH <input type="checkbox"/> N.M. <input type="checkbox"/> UTE <input type="checkbox"/> COSTILLA			
8. PLAT - Location of all wells on property must be plotted and permit numbers provided.			
Surveyors plat		<input type="checkbox"/> YES <input type="checkbox"/> NO If not, scaled hand-drawn sketch <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <u>N/A</u>	
9. ESTIMATED WATER REQUIREMENTS - Gallons per Day or Acre Foot per Year		10. WATER SUPPLY SOURCE <u>DENVER BASIN</u>	
HOUSEHOLD USE # *	<u>160</u> of units <u>48,797</u> GPD <u>54.66</u> AF	<input checked="" type="checkbox"/> EXISTING <input type="checkbox"/> DEVELOPED <input type="checkbox"/> NEW WELLS	
COMMERCIAL USE #	_____ Acres _____ GPD _____ AF	WELLS SPRING WELL PERMIT NUMBERS <u>LFH 80131-F</u> <u>Arapahoe 80132-F</u>	
IRRIGATION # **	<u>1.59</u> acres <u>2,161</u> GPD <u>2.42</u> AF	Proposed Aquifers - (Check One) <input type="checkbox"/> Alluvial <input checked="" type="checkbox"/> Upper Arapahoe <input type="checkbox"/> Upper Dawson <input checked="" type="checkbox"/> Lower Arapahoe <input type="checkbox"/> Lower Dawson <input checked="" type="checkbox"/> Laramie Fox Hills <input checked="" type="checkbox"/> Denver <input type="checkbox"/> Dakota <input type="checkbox"/> Other	
STOCK WATERING #	_____ of head _____ GPD _____ AF	<input checked="" type="checkbox"/> MUNICIPAL <input type="checkbox"/> ASSOCIATION	
OTHER	_____ GPD _____ AF	<input checked="" type="checkbox"/> COMPANY <input checked="" type="checkbox"/> DISTRICT WATER COURT DECREE CASE NUMBERS <u>08 CW-113; 08 CW -018</u> <u>Numerous</u> <u>18CW3002</u>	
TOTAL -Central System	<u>50,958</u> GPD <u>57.08</u> AF	NAME <u>Falcon Area Water and Wastewater Authority</u> LETTER OF COMMITMENT FOR SERVICE <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
**Irrigation included in overall use			
11. ENGINEER'S WATER SUPPLY REPORT		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO If yes, please forward with this form. (This may be required before our review is completed)	
12. TYPE OF SEWAGE DISPOSAL SYSTEM <u>Central Sewer</u>			
<input type="checkbox"/> SEPTIC TANK/LEACH FIELD		<input type="checkbox"/> CENTRAL SYSTEM - DISTRICT NAME: <u>Falcon Area Water and Wastewater Authority</u>	
<input type="checkbox"/> LAGOON		<input type="checkbox"/> VAULT - LOCATION SEWAGE HAULED TO: _____	
<input type="checkbox"/> ENGINEERED SYSTEM (Attach a copy of engineering design)		<input type="checkbox"/> OTHER: _____	

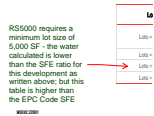
V1_water rep.pdf Markup Summary

dsdparsons (6)



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Please add the revised docs or added docs per the States comments



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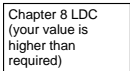
RS5000 requires a minimum lot size of 5,000 SF - the water calculated is lower than the SFE ratio for this development as written above; but this table is higher than the EPC Code SFE



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(d) Presumptive Use Values. In the absence of data on water use to the contrary or other minimum values established as acceptable by the State Engineer, the following presumptive values will be used to calculate the annual water demand:

- Residential inside use 0.26 acre feet per year for single family residences and 0.20 acre feet per year for each occupancy unit in multiple family residences other than single family. A duplex contains 2 occupancy units, a triplex contains 3 occupancy units, etc.;
- Residential and commercial landscaping use 0.0566 acre feet per 1,000 square feet of landscaping;
- Commercial and industrial inside use 0.1 gallon per day for each square foot of developed space; and
- Miscellaneous irrigation (landscaping, golf courses, etc.) use 2.46 acre feet per acre per year.



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Chapter 8 LDC (your value is higher than required)

0.26 ac
feet =
84721.25
gallons

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Page Label: 5
Author: dsdparsons
Date: 9/25/2023 11:41:57 AM
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0.26 ac feet = 84721.25 gallons



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Page Label: 6
Author: dsdparsons
Date: 9/25/2023 11:44:47 AM
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please see State Eng comments also,note
planning staffs comments on calcs....