

2021 ANNUAL HYDROLOGY REPORT

HAYDEN GULCH TERMINAL LOADOUT

PERMIT C-92-081

MARCH 2022



Submitted To: Colorado Division of Reclamation, Mining and Safety
1313 Sherman Street, Room 215
Denver, CO 80203

Prepared By: Hayden Gulch Terminal, LLC
PO Box 670
Hayden, CO 81639

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1.0 INTRODUCTION

This Annual Hydrology Report presents the hydrologic monitoring data collected during the 2021 water year (October 2020 - September 2021) at the Hayden Gulch Terminal, LLC Hayden Gulch Loadout (HGT). The AHR fulfills the reporting requirements under the Colorado Division of Reclamation, Mining, and Safety (CDRMS) Permit No. C-1992-081.

1.1 BACKGROUND

The HGT is a former coal loadout located in Routt County, approximately 2 miles southeast of Hayden, Colorado (Figure 1). The tipple and coal storage area were reclaimed in 2011, followed by the east office in 2013, and the west office in 2014.

2.0 METEOROLOGICAL

Meteorological data for the 2021 water year is presented in Appendix A. The 2021 data was obtained from NOAA weather station USC00053867 located in Hayden, Colorado (www.ncdc.noaa.gov/cdo-wb/). A total of 12.44 inches of precipitation was measured in 2021, which is 5.68 inches less than the 1981-2021 average of 18.12 inches. February and March were slightly wetter than normal (≤ 0.24 inches), but the remaining months were drier than normal. Potential snowpack runoff, as estimated by totaling November through March precipitation, was 6.49 inches, which was 1.04 inches below the 1981-2021 average of 7.53 inches.

3.0 GROUNDWATER

The HGT groundwater monitoring program includes two monitoring wells. The following table identifies the water bearing unit the wells are screened in and their required monitoring frequency and parameter list. The monitoring well locations are shown on Figure 1. Groundwater monitoring was completed by experienced personnel and samples were collected following the monitoring practices described in Tab 13 of Permit C-1992-081. All samples were analyzed by ACZ Laboratories.

Site	Unit	Monitoring Frequency		Parameter List
		Water Level	Water Quality	
HGDAL3	Dry Creek Alluvium	A	A	GW
HGDAL4	Dry Creek Alluvium	A	A	GW

Note

A: Annual

GW: Field conductivity, field pH, field temperature, dissolved iron, dissolved manganese, total dissolved solids

3.1 WATER LEVELS

The static water levels measured during the 2021 water year are included in Appendix B with the groundwater quality data. Water level hydrographs for each of the wells are also provided in Appendix C. Although the static water levels were only required to be monitored annually, they were measured twice in 2021. Although static water levels at both wells were low in 2021, they were within their respective historic range. The water table in the alluvial wells fluctuates in response to seasonal precipitation events, with the water table typically at its highest during the spring snowmelt seasons and then declining through late summer/early fall in response to the dry conditions. The HGT has been inactive for several year and no alluvial groundwater was utilized by the facility in 2021. The low water levels measured in 2021 were likely a reflection of the water tables natural response to the 2021 draught conditions.

3.2 GROUNDWATER QUALITY

Groundwater points of compliance (GWPOC) were determined to be unwarranted at the Hayden Gulch Loadout (CDRMS GWPOC Determination Memo dated June 5, 2008). The basis for this finding were: 1) alluvial groundwater in this area has naturally elevated total dissolved solids concentrations which results in the groundwater having a “Limited Use and Quality” designation; and, 2) insufficient hydraulic head is present to allow for any recharge originating at the site to migrate into the underlying, low permeability, Lewis Shale. Native groundwater in the Lewis Shale exhibits high concentrations of dissolved solids and irrigation return water upstream of the HGST, which is in contact with soils derived from the Lewis Shale, also contribute to elevated concentrations of selenium and dissolved solids. Table B.1 includes the analytical results for the two alluvial monitoring wells. The monitoring conducted this year continues to support CDRMS findings.

4.0 SURFACE WATER

The HGT is located principally (former coal handling facility area and majority of the railroad spur) in the lower portion of the Dry Creek watershed (Yampa River Segment 13h). The surface water monitoring program includes two NPDES outfalls and two instream sample points. The following table provides the required monitoring frequency and parameter list for each of these points. See Figure 1 for the locations of the surface water monitoring points. Surface water monitoring was completed by experienced personnel and samples were collected following the monitoring practices described in Tab 13 of Permit C-1992-081. All samples were analyzed by ACZ Laboratories.

Site	Type	Watershed	Monitoring Frequency		Parameter List
			Flow	Water Quality	
HGSD1	Surface Water	Dry Creek	SA	SA	SW
NPDES1H	NPDES	Dry Creek	M	M	NPDES
NPDES2H	NPDES	Dry Creek	M	M	NPDES
HGSD3	Surface Water	Dry Creek	SA	SA	SW

Note

SA: Semiannual

M: Monthly

SW: Field conductivity, field pH, field temperature, total recoverable iron, dissolved manganese, nitrate, nitrite, dissolved selenium, total dissolved solids, total suspended solids

NPDES: See NPDES permit COG85008

Analytical results for the 2021 water monitoring conducted at stream point HGSD1 and HGSD3 are provided in Table D.1. Analytical results for NPDES outfalls NPDES1H and NPDES2H are provided in Table D.2. There were no exceedances of NPDES permit limits or instream water quality standards at the outfalls in 2021 as neither one discharged. Dry weather conditions have prevented discharges from both outfalls since 2011. A single exceedance of the chronic dissolved selenium aquatic life standard occurred in June at upstream monitoring point HGSD1. The flow measured at the time of the sample was only 1.2 gallons per minute and downstream at monitoring point HGSD3 the channel was dry. Dry Creek flows through the Lewis Shale and the selenium at upstream point HGSD1 was likely the result of natural contributions from this selenium laden marine shale. There were no other

exceedances of the Yampa Segment 13h aquatic life or agricultural use standards at the HGT surface water monitoring points.

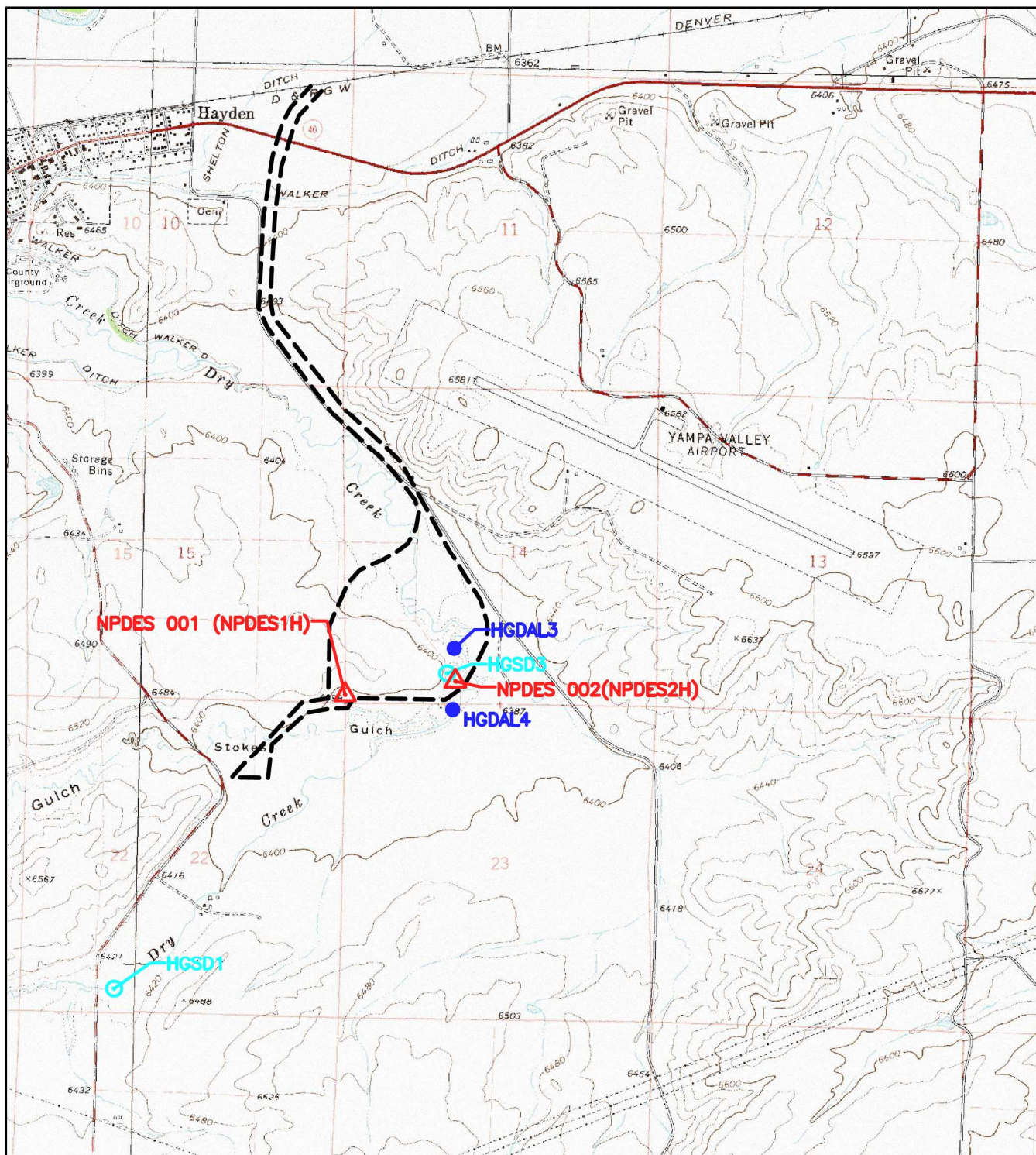
5.0 SUMMARY

No significant hydrologic impacts attributable to the HGT were noted during 2021. Groundwater levels were within their historic range and exhibited typical seasonal fluctuations. Groundwater monitoring continues to demonstrate that the native Dry Creek alluvium contains naturally elevated concentrations of dissolved solids, providing further support for CDRMS's determination that it is of Limited Use and Quality. A single exceedance of the total recoverable iron chronic aquatic life standard occurred at upstream monitoring point HGSD1. There were no exceedances of the NPDES permit limits or water quality standards at the HGT outfalls or downstream monitoring point.

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LEGEND

-  GROUNDWATER
-  SURFACE WATER
-  NPDES
- PERMIT BOUNDARY

0 2500'
SCALE

IMAGE SOURCE:
DIGITAL RASTER GRAPHIC COUNTY MOSAIC BY NRCS
OF ROUTT COUNTY, COLORADO FROM GEOSPATIAL
DATA GATEWAY ([HTTPS://GDG.SC.EGOV.USDA.GOV](https://gdg.sc.egov.usda.gov))
DOWNLOADED 10/16

FIGURE 1 MONITORING SITE LOCATIONS

HAYDEN GULCH TERMINAL LOADOUT
HAYDEN GULCH TERMINAL, LLC
PEABODY ENERGY

 **WWCENGINEERING**

DESIGNED BY: WWC
DRAWN BY: SDG
CHECKED BY: TNS
DATE: 2019

APPENDIX A
METEOROLOGICAL DATA

PERIOD OF RECORD PRECIPITATION SUMMARY													
Water Year	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
2021	0.87	0.74	1.46	1.03	1.59	1.67	0.5	1.02	0.15	0.86	1.09	1.46	12.44
2020	1.90	1.37	2.60	2.53	2.40	1.67	1.75	1.63	0.77	0.71	0.43	0.43	18.19
2019	2.14	1.81	1.62	2.45	1.46	2.89	1.66	1.88	3.57	0.38	0.44	1.53	21.83
2018	2.45	1.31	1.36	1.65	1.92	1.90	2.95	0.85	0.15	0.15	1.33	0.17	16.19
2017	1.29	0.91	2.06	2.70	1.47	0.84	2.06	1.85	0.13	1.68	0.46	1.74	17.19
2016	1.39	1.90	2.55	2.65	1.16	1.40	3.02	1.94	0.40	0.81	0.19	1.02	18.43
2015	1.60	2.10	1.84	0.55	1.02	1.30	1.60	4.36	0.61	2.36	1.53	0.90	19.77
2014	2.69	1.75	1.42	2.02	0.78	1.96	1.19	2.58	0.72	1.50	3.77	0.87	21.25
2013	0.86	0.46	3.21	1.02	0.73	1.29	3.58	1.67	0.06	0.46	1.48	2.76	17.58
2012	1.41	1.65	0.36	0.87	1.97	0.50	1.13	0.22	0.15	2.43	0.55	1.56	12.80
2011	2.18	1.91	2.98	1.59	2.09	2.52	4.50	3.56	0.85	1.82	0.65	1.14	25.79
2010	1.22	0.77	1.24	0.75	0.90	0.73	1.98	2.80	1.34	1.19	1.56	0.62	15.10
2009	0.53	1.16	1.38	2.80	0.60	1.32	1.40	1.89	2.08	0.51	1.04	0.48	15.19
2008	1.41	0.13	3.36	2.51	1.70	1.64	0.94	1.68	0.37	0.57	0.75	0.91	15.97
2007	2.64	0.76	0.86	1.04	1.34	1.46	0.62	0.87	0.33	0.52	1.12	2.72	14.28
2006	2.27	2.04	2.01	1.78	0.58	1.06	0.95	0.93	0.24	1.48	2.71	2.75	18.80
2005	1.34	1.68	0.50	1.49	0.84	0.99	1.97	1.41	3.36	0.57	1.57	1.30	17.02
2004	0.44	2.90	1.58	0.74	1.64	0.40	1.57	1.26	0.86	1.00	1.44	2.76	16.59
2003	1.88	1.09	1.28	0.74	1.95	0.99	2.57	1.15	1.33	0.47	0.62	1.83	15.90
2002	1.14	1.17	0.54	0.88	0.92	1.06	1.39	0.40	0.37	0.78	1.26	1.94	11.85
2001	0.67	1.60	1.16	0.96	1.41	1.07	1.28	1.15	0.85	1.11	2.06	1.66	14.98
2000	0.43	0.61	1.66	1.66	1.68	1.46	1.84	1.94	0.54	0.75	2.38	2.00	16.95
1999	1.85	0.81	1.13	2.13	0.99	0.57	3.21	2.00	1.39	2.10	1.85	0.78	18.81
1998	2.37	1.08	0.95	1.34	1.93	1.77	1.77	0.62	2.51	1.50	0.48	1.50	17.82
1997	1.79	2.39	1.69	2.88	0.97	0.48	3.19	2.75	1.60	1.05	3.57	5.48	27.84
1996	1.32	2.20	1.26	3.60	2.19	0.99	1.34	2.10	1.00	1.33	0.35	1.37	19.05
1995	0.95	2.09	0.68	1.47	0.97	0.82	3.36	4.48	1.54	1.23	0.73	2.69	21.01
1994	3.02	1.61	1.16	0.69	1.13	0.56	1.85	1.07	0.43	0.24	0.98	0.72	13.46
1993	1.46	1.48	1.33	2.28	1.66	1.53	2.55	1.14	1.29	0.65	1.37	1.39	18.13
1992	1.18	2.79	0.85	0.88	1.16	1.20	1.66	3.08	1.15	4.38	0.95	0.98	20.26
1991	3.20	1.71	1.18	1.75	0.86	2.42	1.09	0.96	1.74	1.59	2.00	1.32	19.82
1990	0.77	1.38	2.08	0.65	1.64	1.54	1.36	1.12	1.38	1.14	0.51	1.22	14.79
1989	0.13	2.79	1.13	1.02	2.50	1.38	0.45	1.39	0.53	1.82	1.33	1.52	15.99
1988	1.27	1.22	2.32	2.80	0.70	1.31	0.83	1.85	1.93	0.60	1.03	2.31	18.17
1987	2.65	1.00	0.56	1.28	1.35	1.50	1.60	1.92	0.64	1.78	1.35	0.46	16.09
1986	3.51	4.19	1.34	0.79	3.01	1.59	2.70	0.99	1.00	1.65	1.96	2.12	24.85
1985	2.61	1.68	1.80	2.40	1.01	2.40	3.77	1.40	0.68	1.28	0.64	1.17	20.84
1984	2.16	2.82	5.03	0.59	0.43	2.31	2.68	1.33	2.36	1.84	2.61	1.31	25.47
1983	1.64	1.52	1.03	1.10	1.66	2.17	2.28	1.57	2.76	1.88	1.08	0.79	19.48
1982	3.76	0.78	2.51	1.71	0.62	2.64	1.92	0.97	0.46	1.60	1.19	2.64	20.80
1981	1.09	0.33	0.43	0.53	0.45	2.50	0.69	3.97	1.65	2.24	1.12	1.33	16.33
AVG	1.69	1.55	1.60	1.57	1.35	1.46	1.92	1.75	1.10	1.27	1.31	1.55	18.12

Note

Data from October 1980 to February 1982, and 2011 Water Year and later, from U.S. Department of Commerce - NOAA - Hayden Station. All other data from Seneca II Mine Meteorological Station with Belfort Weighing Bucket Rain Gage. Site relocated to USGS site on August 31, 1991. Precipitation recorded in inches.

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information Service
Current Location: Elev: 6467 ft. Lat: 40.4926° N Lon: -107.2548° W
Station: **HAYDEN, CO US USC00053867**

**Record of Climatological
Observations**
**These data are quality controlled and may not
be identical to the original observations.**
Generated on 02/17/2022

National Centers for Environmental Information
151 Patton Avenue
Asheville, North Carolina 28801

Observation Time Temperature: 1800 Observation Time Precipitation: 1800

Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Obs.	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2020	10	01	68	26	61	0.00		0.0		0.0								
2020	10	02	63	29	61	0.00		0.0		0.0								
2020	10	03	66	25	64	0.00		0.0		0.0								
2020	10	04	77	33	71	0.00		0.0		0.0								
2020	10	05	78	28	70	0.00		0.0		0.0								
2020	10	06	77	31	69	0.00		0.0		0.0								
2020	10	07	80	33	70	0.00		0.0		0.0								
2020	10	08	79	32	69	0.00		0.0		0.0								
2020	10	09	78	33	72	0.00		0.0		0.0								
2020	10	10	79	39	68	0.00		0.0		0.0								
2020	10	11	68	31	45	0.22		1.0		0.0								
2020	10	12	63	24	56	0.00		0.0		0.0								
2020	10	13	71	28	63	0.00		0.0		0.0								
2020	10	14	65	35	55	0.00		0.0		0.0								
2020	10	15	55	28	44	0.00		0.0		0.0								
2020	10	16	61	19	57	0.00		0.0		0.0								
2020	10	17	64	33	61	0.00		0.0		0.0								
2020	10	18	66	39	62	0.00		0.0		0.0								
2020	10	19	63	33	57	0.00		0.0		0.0								
2020	10	20	63	33	56	0.00		0.0		0.0								
2020	10	21	72	30	67	0.00		0.0		0.0								
2020	10	22	67	41	41	0.00		0.0		0.0								
2020	10	23	41	9	36	0.00		0.0		0.0								
2020	10	24	50	19	48	0.00		0.0		0.0								
2020	10	25	48	11	11	0.54		7.0		7.0								
2020	10	26	15	2	7	0.11		2.0		8.0								
2020	10	27	28	-10	19	0.00		0.0		7.0								
2020	10	28	34	6	31	0.00		0.0		6.0								
2020	10	29	50	17	45	0.00		0.0		4.0								
2020	10	30	57	25	50	0.00		0.0		1.0								
2020	10	31	57	23	49	0.00		0.0		0.0								
Summary			61	25		0.87		10.0										

Empty, or blank, cells indicate that a data observation was not reported.

*Ground Cover: 1=Grass; 2=Fallow; 3=Bare Ground; 4=Brome grass; 5=Sod; 6=Straw mulch; 7=Grass muck; 8=Bare muck; 0=Unknown

"s" This data value failed one of NCDC's quality control tests. "At Obs." = Temperature at time of observation

"T" values in the Precipitation or Snow category above indicate a "trace" value was recorded.

"A" values in the Precipitation Flag or the Snow Flag column indicate a multiday total, accumulated since last measurement, is being used.

Data value inconsistency may be present due to rounding calculations during the conversion process from SI metric units to standard imperial units.

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Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Obs.	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2020	11	01	64	25	47	0.00		0.0		0.0								
2020	11	02	66	27	49	0.00		0.0		0.0								
2020	11	03	68	28	52	0.00		0.0		0.0								
2020	11	04	66	30	52	0.00		0.0		0.0								
2020	11	05	68	28	50	0.00		0.0		0.0								
2020	11	06	58	30	51	0.00		0.0		0.0								
2020	11	07	65	30	57	0.00		0.0		0.0								
2020	11	08	57	27	31	0.12		0.5		0.0								
2020	11	09	39	23	26	0.09		1.5		1.0								
2020	11	10	32	18	25	0.15		3.0		2.0								
2020	11	11	38	20	30	0.00		0.0		1.0								
2020	11	12	34	17	23	0.10		2.5		2.0								
2020	11	13	48	9	38	0.00		0.0		0.0								
2020	11	14	42	23	24	0.22		2.0		1.0								
2020	11	15	34	12	33	0.00		0.0		1.0								
2020	11	16	56	27	42	0.00		0.0		0.0								
2020	11	17	59	26	46	0.00		0.0		0.0								
2020	11	18	63	29	55	0.00		0.0		0.0								
2020	11	19	55	37	37	0.00		0.0		0.0								
2020	11	20	45	25	34	0.00		0.0		0.0								
2020	11	21	45	20	32	0.00		0.0		0.0								
2020	11	22	45	12	35	0.00		0.0		0.0								
2020	11	23	48	25	37	0.04		0.0		0.0								
2020	11	24	38	27	29	0.00		0.0		0.0								
2020	11	25	43	17	34	0.00		0.0		0.0								
2020	11	26	35	16	22	0.02		T		0.0								
2020	11	27	36	6	21	0.00		0.0		0.0								
2020	11	28	34	8	22	0.00		0.0		0.0								
2020	11	29	42	8	26	0.00		0.0		0.0								
2020	11	30	46	10	30	0.00		0.0		0.0								
Summary			49	21		0.74		9.5										

Empty, or blank, cells indicate that a data observation was not reported.
*Ground Cover: 1=Grass; 2=Fallow; 3=Bare Ground; 4=Brome grass; 5=Sod; 6=Straw mulch; 7=Grass muck; 8=Bare muck; 0=Unknown
"s" This data value failed one of NCDC's quality control tests. "At Obs." = Temperature at time of observation
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2020	12	01	30	16	24	0.05		0.5		1.0								
2020	12	02	28	7	13	0.00		0.0		1.0								
2020	12	03	33	-1	18	0.00		0.0		1.0								
2020	12	04	41	7	26	0.00		0.0		T								
2020	12	05	41	5	27	0.00		0.0		0.0								
2020	12	06	50	10	30	0.00		0.0		0.0								
2020	12	07	45	9	26	0.00		0.0		0.0								
2020	12	08	51	9	29	0.00		0.0		0.0								
2020	12	09	54	13	33	0.00		0.0		0.0								
2020	12	10	39	16	29	0.00		0.0		0.0								
2020	12	11	32	18	22	0.07		1.0		1.0								
2020	12	12	27	16	19	0.07		1.0		2.0								
2020	12	13	25	-7	13	0.00		0.0		2.0								
2020	12	14	25	8	20	0.19		3.0		4.0								
2020	12	15	24	12	13	T		0.5		4.0								
2020	12	16	25	8	22	0.14		4.0		6.0								
2020	12	17	27	6	25	0.00		0.0		6.0								
2020	12	18	29	22	23	0.13		1.5		6.0								
2020	12	19	29	10	23	0.00		0.0		5.0								
2020	12	20	31	6	28	T		T		4.0								
2020	12	21	44	27	30	0.00		0.0		2.0								
2020	12	22	36	1	15	0.10		1.0		2.0								
2020	12	23	19	1	12	0.04		0.5		2.0								
2020	12	24	26	-6	15	0.00		0.0		2.0								
2020	12	25	35	2	25	0.00		0.0		2.0								
2020	12	26	34	6	31	0.00		0.0		2.0								
2020	12	27	33	22	25	0.01		T		2.0								
2020	12	28	26	8	20	0.07		1.5		3.0								
2020	12	29	23	6	6	0.59		7.0		10.0								
2020	12	30	19	-9	9	0.00		0.0		9.0								
2020	12	31	27	7	20	0.00		0.0		9.0								
Summary			33	8		1.46		21.5										

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*Ground Cover: 1=Grass; 2=Fallow; 3=Bare Ground; 4=Brome grass; 5=Sod; 6=Straw mulch; 7=Grass muck; 8=Bare muck; 0=Unknown
"s" This data value failed one of NCDC's quality control tests. "At Obs." = Temperature at time of observation
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**Record of Climatological
Observations**
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Observation Time Temperature: 1800 Observation Time Precipitation: 1800

Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Obs.	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2021	01	01	23	2	10	0.00		0.0		9.0								
2021	01	02	22	-5	17	0.00		0.0		8.0								
2021	01	03	25	0	23	0.05		0.5		8.0								
2021	01	04	33	13	22	0.00		0.0		7.0								
2021	01	05	31	18	27	0.38		6.0		13.0								
2021	01	06	27	1	16	0.00		0.0		12.0								
2021	01	07	27	4	18	0.00		0.0		12.0								
2021	01	08	29	2	13	0.00		0.0		10.0								
2021	01	09	20	-1	14	0.00		0.0		9.0								
2021	01	10	22	10	10	T		T		9.0								
2021	01	11	24	-8	6	0.00		0.0		9.0								
2021	01	12	24	0	12	0.00		0.0		9.0								
2021	01	13	32	10	24	0.00		0.0		9.0								
2021	01	14	29	14	20	0.00		0.0		9.0								
2021	01	15	25	-1	21	0.00		0.0		9.0								
2021	01	16	35	15	23	0.01		0.5		9.0								
2021	01	17	36	15	31	0.00		0.0		9.0								
2021	01	18	35	18	18	0.00		0.0		9.0								
2021	01	19	25	-6	13	0.00		0.0		9.0								
2021	01	20	34	3	18	0.00		0.0		9.0								
2021	01	21	37	9	26	0.00		0.0		9.0								
2021	01	22	38	24	32	T		T		9.0								
2021	01	23	37	26	26	0.16		2.0		11.0								
2021	01	24	33	12	21	0.00		0.0		11.0								
2021	01	25	28	11	19	0.13		2.0		12.0								
2021	01	26	20	1	15	0.02		0.5		12.0								
2021	01	27	25	-1	20	0.00		0.0		12.0								
2021	01	28	37	19	25	0.00		0.0		11.0								
2021	01	29	48	17	41	0.00		0.0		10.0								
2021	01	30	41	26	26	0.28		3.0		13.0								
2021	01	31	28	7	19	T		T		13.0								
Summary			30	8		1.03		14.5										

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U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information Service
Current Location: Elev: 6467 ft. Lat: 40.4926° N Lon: -107.2548° W
Station: **HAYDEN, CO US USC00053867**

**Record of Climatological
Observations**
**These data are quality controlled and may not
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Generated on 02/17/2022

National Centers for Environmental Information
151 Patton Avenue
Asheville, North Carolina 28801

Observation Time Temperature: 1800 Observation Time Precipitation: 1800

Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Obs.	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2021	02	01	33	6	25	0.00		0.0		12.0								
2021	02	02	42	14	35	0.00		0.0		11.0								
2021	02	03	45	25	26	0.10		1.5		13.0								
2021	02	04	28	9	24	0.02		0.5		11.0								
2021	02	05	27	17	27	0.35		6.0		16.0								
2021	02	06	33	20	32	0.00		0.0		14.0								
2021	02	07	41	22	33	0.00		0.0		12.0								
2021	02	08	41	19	33	0.00		0.0		12.0								
2021	02	09	35	14	29	0.04		1.0		13.0								
2021	02	10	41	27	34	0.07		0.5		13.0								
2021	02	11	40	18	36	T		T		12.0								
2021	02	12	37	29	33	0.19		2.0		12.0								
2021	02	13	35	22	22	0.19		2.0		14.0								
2021	02	14	22	-8	-6	0.19		2.5		16.0								
2021	02	15	21	-7	18	0.04		0.5		15.0								
2021	02	16	34	14	23	0.20		3.0		17.0								
2021	02	17	28	14	20	0.04		1.0		17.0								
2021	02	18	22	-5	16	0.00		0.0		16.0								
2021	02	19	28	0	24	0.00		0.0		16.0								
2021	02	20	31	12	26	T		T		16.0								
2021	02	21	30	14	27	0.00		0.0		16.0								
2021	02	22	37	17	27	0.00		0.0		16.0								
2021	02	23	42	7	32	0.00		0.0		15.0								
2021	02	24	36	3	25	0.00		0.0		15.0								
2021	02	25	27	6	18	0.00		0.0		15.0								
2021	02	26	32	5	25	0.00		0.0		14.0								
2021	02	27	26	14	15	0.16		2.0		16.0								
2021	02	28	22	-6	12	0.00		0.0		16.0								
Summary			33	12		1.59		22.5										

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U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information Service
Current Location: Elev: 6467 ft. Lat: 40.4926° N Lon: -107.2548° W
Station: **HAYDEN, CO US USC00053867**

**Record of Climatological
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National Centers for Environmental Information
151 Patton Avenue
Asheville, North Carolina 28801

Observation Time Temperature: 1800 Observation Time Precipitation: 1800

Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Obs.	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2021	03	01	31	0	23	0.00		0.0		15.0								
2021	03	02	39	9	30	0.00		0.0		15.0								
2021	03	03	43	12	36	0.00		0.0		14.0								
2021	03	04	36	22	34	0.07		1.0		14.0								
2021	03	05	42	20	37	0.00		0.0		13.0								
2021	03	06	50	25	40	0.00		0.0		13.0								
2021	03	07	56	26	44	0.00		0.0		11.0								
2021	03	08	49	27	44	0.00		0.0		10.0								
2021	03	09	57	27	44	0.00		0.0		8.0								
2021	03	10	44	23	23	0.38		3.0		10.0								
2021	03	11	40	20	27	0.12		1.0		10.0								
2021	03	12	42	22	36	0.05		1.0		9.0								
2021	03	13	40	17	30	0.11		1.0		9.0								
2021	03	14	40	27	34	0.06		0.5		8.0								
2021	03	15	43	22	40	0.14		2.5		9.0								
2021	03	16	40	22	35	0.10		1.0		9.0								
2021	03	17	42	27	42	0.00		0.0		9.0								
2021	03	18	44	22	42	0.00		0.0		8.0								
2021	03	19	53	22	50	0.00		0.0		3.0								
2021	03	20	60	32	54	0.00		0.0		0.0								
2021	03	21	54	26	38	0.12		1.5		0.0								
2021	03	22	45	22	42	0.00		0.0		0.0								
2021	03	23	43	36	39	T		T		0.0								
2021	03	24	45	16	42	0.00		0.0		0.0								
2021	03	25	42	18	32	T		T		0.0								
2021	03	26	44	28	36	0.45		2.5		2.0								
2021	03	27	43	36	40	0.07		0.5		1.0								
2021	03	28	53	22	51	0.00		0.0		0.0								
2021	03	29	58	36	36	0.00		0.0		0.0								
2021	03	30	40	32	38	0.00		0.0		0.0								
2021	03	31	48	20	46	0.00		0.0		0.0								
Summary			45	23		1.67		15.5										

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U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information Service
Current Location: Elev: 6467 ft. Lat: 40.4926° N Lon: -107.2548° W
Station: **HAYDEN, CO US USC00053867**

**Record of Climatological
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Generated on 02/17/2022

National Centers for Environmental Information
151 Patton Avenue
Asheville, North Carolina 28801

Observation Time Temperature: 1800 Observation Time Precipitation: 1800

Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Obs.	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2021	04	01	60		58	0.00		0.0		0.0								
2021	04	02	68	24	64	0.00		0.0		0.0								
2021	04	03	72	28	70	0.00		0.0		0.0								
2021	04	04	70	34	68	0.00		0.0		0.0								
2021	04	05	73	32	68	0.00		0.0		0.0								
2021	04	06	68	32	40	0.01		T		0.0								
2021	04	07	54	33	52	0.05		0.5		0.0								
2021	04	08	63	21	61	0.00		0.0		0.0								
2021	04	09	61	32	46	0.00		0.0		0.0								
2021	04	10	61	22	56	0.00		0.0		0.0								
2021	04	11	56	20	50	0.00		0.0		0.0								
2021	04	12	50	25	44	0.00		0.0		0.0								
2021	04	13	60	22	54	0.00		0.0		0.0								
2021	04	14	54	30	46	0.23		2.0		0.0								
2021	04	15	50	30	38	0.07		T		0.0								
2021	04	16	42	22	40	0.04		0.5		0.0								
2021	04	17	51	16	46	0.00		0.0		0.0								
2021	04	18	59	30	56	0.00		0.0		0.0								
2021	04	19	58	24	38	0.00		0.0		0.0								
2021	04	20	45	8	45	0.00		0.0		0.0								
2021	04	21	45	16	42	T		T		0.0								
2021	04	22	56	28	55	T		T		0.0								
2021	04	23	58	36	54	0.00		0.0		0.0								
2021	04	24	64	28	61	0.00		0.0		0.0								
2021	04	25	72	39	70	0.00		0.0		0.0								
2021	04	26	70	36	57	0.00		0.0		0.0								
2021	04	27	58	32	43	0.06		0.0		0.0								
2021	04	28	62	32	60	0.04		0.0		0.0								
2021	04	29	72	28	70	0.00		0.0		0.0								
2021	04	30	80	39	78	0.00		0.0		0.0								
Summary			60	28		0.50		3.0										

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Station: **HAYDEN, CO US USC00053867**

**Record of Climatological
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National Centers for Environmental Information
151 Patton Avenue
Asheville, North Carolina 28801

Generated on 02/17/2022

Observation Time Temperature: 1800 Observation Time Precipitation: 1800

Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Obs.	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2021	05	01	78	38	72	0.00		0.0		0.0								
2021	05	02	74	32	50	0.02		0.0		0.0								
2021	05	03	50	39	40	0.40		0.0		0.0								
2021	05	04	54	32	46	0.03		0.0		0.0								
2021	05	05	64	34	64	0.03		0.0		0.0								
2021	05	06	76	27	76	0.00		0.0		0.0								
2021	05	07	80	40	76	0.00		0.0		0.0								
2021	05	08	76	41	60	T		0.0		0.0								
2021	05	09	60	24	54	0.00		0.0		0.0								
2021	05	10	56	32	48	0.02		0.0		0.0								
2021	05	11	48	32	40	0.44		2.5		0.0								
2021	05	12	66	22	62	0.00		0.0		0.0								
2021	05	13	76	30	72	0.00		0.0		0.0								
2021	05	14	79	34	64	0.00		0.0		0.0								
2021	05	15	77	39	70	0.02		0.0		0.0								
2021	05	16	76	34	66	0.00		0.0		0.0								
2021	05	17	72	40	58	0.00		0.0		0.0								
2021	05	18	76	34	74	0.00		0.0		0.0								
2021	05	19	80	34	78	0.00		0.0		0.0								
2021	05	20	80	42	76	0.00		0.0		0.0								
2021	05	21	76	46	68	0.00		0.0		0.0								
2021	05	22	82	39	56	T		0.0		0.0								
2021	05	23	64	38	60	0.05		0.0		0.0								
2021	05	24	66	29	66	0.00		0.0		0.0								
2021	05	25	74	26	70	0.00		0.0		0.0								
2021	05	26	79	40	70	0.00		0.0		0.0								
2021	05	27	78	30	75	T		0.0		0.0								
2021	05	28	82	32	78	0.00		0.0		0.0								
2021	05	29	80	36	68	T		0.0		0.0								
2021	05	30	80	46	54	0.01		0.0		0.0								
2021	05	31	74	34	66	0.00		0.0		0.0								
Summary			72	35		1.02		2.5										

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151 Patton Avenue
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Observation Time Temperature: 1800 Observation Time Precipitation: 1800

Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Obs.	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2021	06	01	77	38	76	0.00		0.0		0.0								
2021	06	02	80	42	80	0.00		0.0		0.0								
2021	06	03	89	46	83	0.00		0.0		0.0								
2021	06	04	93	42	91	0.00		0.0		0.0								
2021	06	05	92	46	62	0.00		0.0		0.0								
2021	06	06	87	52	77	0.00		0.0		0.0								
2021	06	07	88	54	84	0.00		0.0		0.0								
2021	06	08	84	46	75	0.00		0.0		0.0								
2021	06	09	82	39	80	0.00		0.0		0.0								
2021	06	10	80	46	74	0.00		0.0		0.0								
2021	06	11	74	31	71	0.00		0.0		0.0								
2021	06	12	80	37	79	0.00		0.0		0.0								
2021	06	13	85	46	84	0.00		0.0		0.0								
2021	06	14	92	46	91	0.00		0.0		0.0								
2021	06	15	91	46	91	0.00		0.0		0.0								
2021	06	16	92	56	92	0.00		0.0		0.0								
2021	06	17	92	55	91	0.00		0.0		0.0								
2021	06	18	91	54	86	0.00		0.0		0.0								
2021	06	19	87	64	80	0.01		0.0		0.0								
2021	06	20	86	44	83	0.00		0.0		0.0								
2021	06	21	84	45	84	0.00		0.0		0.0								
2021	06	22	90	44	88	0.00		0.0		0.0								
2021	06	23	88	52	78	0.00		0.0		0.0								
2021	06	24	81	52	60	0.03		0.0		0.0								
2021	06	25	72	52	64	0.03		0.0		0.0								
2021	06	26	74	44	66	0.05		0.0		0.0								
2021	06	27	76	42	75	0.00		0.0		0.0								
2021	06	28	80	43	78	0.00		0.0		0.0								
2021	06	29	78	50	77	0.00		0.0		0.0								
2021	06	30	78	49	73	0.03		0.0		0.0								
Summary			84	47		0.15		0.0										

Empty, or blank, cells indicate that a data observation was not reported.
*Ground Cover: 1=Grass; 2=Fallow; 3=Bare Ground; 4=Brome grass; 5=Sod; 6=Straw mulch; 7=Grass muck; 8=Bare muck; 0=Unknown
"s" This data value failed one of NCDC's quality control tests. "At Obs." = Temperature at time of observation
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Station: **HAYDEN, CO US USC00053867**

**Record of Climatological
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Generated on 02/17/2022

National Centers for Environmental Information
151 Patton Avenue
Asheville, North Carolina 28801

Observation Time Temperature: 1800 Observation Time Precipitation: 1800

Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Obs.	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2021	07	01	82	52	82	0.17		0.0		0.0								
2021	07	02	88	54	80	0.00		0.0		0.0								
2021	07	03	93	52	85	T		0.0		0.0								
2021	07	04	92	52	81	0.00		0.0		0.0								
2021	07	05	92	52	82	0.00		0.0		0.0								
2021	07	06	92	51	86	0.03		0.0		0.0								
2021	07	07	92	56	91	0.00		0.0		0.0								
2021	07	08	96	57	88	0.00		0.0		0.0								
2021	07	09	97	62	92	0.00		0.0		0.0								
2021	07	10	92	44	89	0.00		0.0		0.0								
2021	07	11	90	52	86	0.00		0.0		0.0								
2021	07	12	97	54	94	0.00		0.0		0.0								
2021	07	13	94	62	72	0.00		0.0		0.0								
2021	07	14	84	54	68	0.00		0.0		0.0								
2021	07	15	91	52	82	0.00		0.0		0.0								
2021	07	16	90	52	84	0.00		0.0		0.0								
2021	07	17	92	52	89	0.00		0.0		0.0								
2021	07	18	97	54	96	0.00		0.0		0.0								
2021	07	19	96	62	94	0.00		0.0		0.0								
2021	07	20	94	54	82	0.01		0.0		0.0								
2021	07	21	94	62	88	0.00		0.0		0.0								
2021	07	22	92	62	84	0.00		0.0		0.0								
2021	07	23	88	62	86	0.00		0.0		0.0								
2021	07	24	87	54	83	0.00		0.0		0.0								
2021	07	25	96	62	68	0.23		0.0		0.0								
2021	07	26	94	52	90	0.06		0.0		0.0								
2021	07	27	94	54	93	0.00		0.0		0.0								
2021	07	28	97	54	90	0.00		0.0		0.0								
2021	07	29	90	62	82	0.20		0.0		0.0								
2021	07	30	86	64	78	0.16		0.0		0.0								
2021	07	31	86	54	74	0.00		0.0		0.0								
Summary			92	56		0.86		0.0										

Empty, or blank, cells indicate that a data observation was not reported.
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"s" This data value failed one of NCDC's quality control tests. "At Obs." = Temperature at time of observation
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National Centers for Environmental Information
151 Patton Avenue
Asheville, North Carolina 28801

Observation Time Temperature: 1800 Observation Time Precipitation: 1800

Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Obs.	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2021	08	01	83	58	72	0.02		0.0		0.0								
2021	08	02	78	54	78	0.00		0.0		0.0								
2021	08	03	80	57	70	0.30		0.0		0.0								
2021	08	04	84	51	80	0.07		0.0		0.0								
2021	08	05	87	52	87	0.00		0.0		0.0								
2021	08	06	87	54	81	0.02		0.0		0.0								
2021	08	07	81	45	76	0.00		0.0		0.0								
2021	08	08	88	44	87	0.00		0.0		0.0								
2021	08	09	87	50	84	0.00		0.0		0.0								
2021	08	10	87	47	84	0.00		0.0		0.0								
2021	08	11	86	46	86	0.00		0.0		0.0								
2021	08	12	93	52	90	0.00		0.0		0.0								
2021	08	13	90	54	87	0.00		0.0		0.0								
2021	08	14	90	52	88	0.00		0.0		0.0								
2021	08	15	88	54	80	0.00		0.0		0.0								
2021	08	16	88	54	86	0.02		0.0		0.0								
2021	08	17	87	53	82	0.00		0.0		0.0								
2021	08	18	89	56	76	0.00		0.0		0.0								
2021	08	19	76	56	60	0.45		0.0		0.0								
2021	08	20	76	44	76	0.00		0.0		0.0								
2021	08	21	80	46	77	0.00		0.0		0.0								
2021	08	22	82	46	80	0.00		0.0		0.0								
2021	08	23	84	44	84	0.00		0.0		0.0								
2021	08	24	85	46	83	0.00		0.0		0.0								
2021	08	25	83	46	82	0.00		0.0		0.0								
2021	08	26	82	54	66	0.10		0.0		0.0								
2021	08	27	83	44	83	0.11		0.0		0.0								
2021	08	28	84	44	84	0.00		0.0		0.0								
2021	08	29	86	45	83	0.00		0.0		0.0								
2021	08	30	86	42	85	0.00		0.0		0.0								
2021	08	31	85	45	80	0.00		0.0		0.0								
Summary			85	50		1.09		0.0										

Empty, or blank, cells indicate that a data observation was not reported.

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Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Obs.	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2021	09	01	80	50	60	0.31		0.0		0.0								
2021	09	02	78	54	74	0.15		0.0		0.0								
2021	09	03	80	46	72	0.00		0.0		0.0								
2021	09	04	78	44	76	0.00		0.0		0.0								
2021	09	05	80	35	76	0.00		0.0		0.0								
2021	09	06	84	40	84	0.00		0.0		0.0								
2021	09	07	88	42	80	0.00		0.0		0.0								
2021	09	08	88	44	86	0.00		0.0		0.0								
2021	09	09	88	44	86	0.00		0.0		0.0								
2021	09	10	89	45	87	0.00		0.0		0.0								
2021	09	11	87	50	65	0.03		0.0		0.0								
2021	09	12	80	44	77	0.00		0.0		0.0								
2021	09	13	82	50	74	0.00		0.0		0.0								
2021	09	14	80	37	74	0.03		0.0		0.0								
2021	09	15	80	42	77	0.00		0.0		0.0								
2021	09	16	82	44	79	0.00		0.0		0.0								
2021	09	17	79	42	78	0.00		0.0		0.0								
2021	09	18	83	44	75	0.00		0.0		0.0								
2021	09	19	77	44	72	0.02		0.0		0.0								
2021	09	20	72	36	52	0.38		0.0		0.0								
2021	09	21	63	28	56	0.00		0.0		0.0								
2021	09	22	74	31	70	0.00		0.0		0.0								
2021	09	23	75	36	73	0.00		0.0		0.0								
2021	09	24	74	36	64	0.00		0.0		0.0								
2021	09	25	78	37	74	0.00		0.0		0.0								
2021	09	26	82	37	73	0.00		0.0		0.0								
2021	09	27	83	36	76	0.00		0.0		0.0								
2021	09	28	82	40	54	0.15		0.0		0.0								
2021	09	29	54	44	48	0.37		0.0		0.0								
2021	09	30	58	44	57	0.02		0.0		0.0								
Summary			79	42		1.46		0.0										

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*Ground Cover: 1=Grass; 2=Fallow; 3=Bare Ground; 4=Brome grass; 5=Sod; 6=Straw mulch; 7=Grass muck; 8=Bare muck; 0=Unknown
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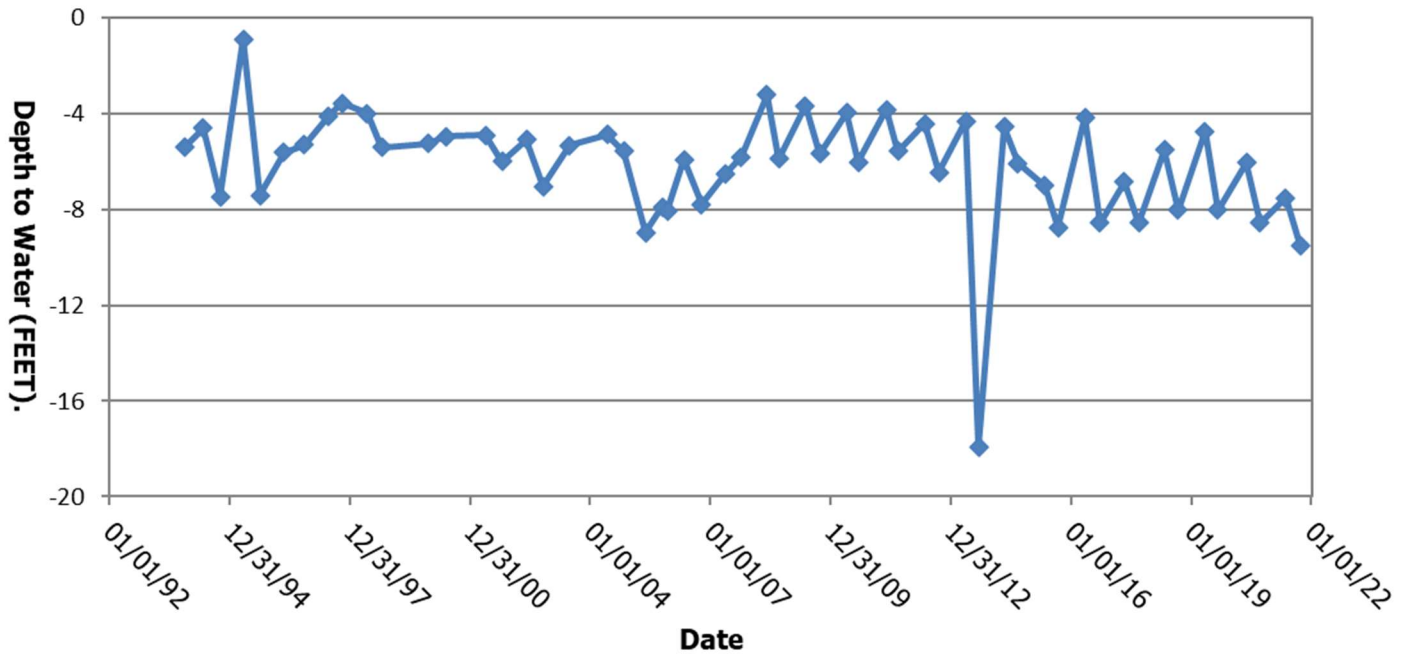
APPENDIX B
GROUNDWATER QULITY DATA

Table B.1. Analytical results for monitoring wells HGDAL3 and HDAL4 during water year 2021.

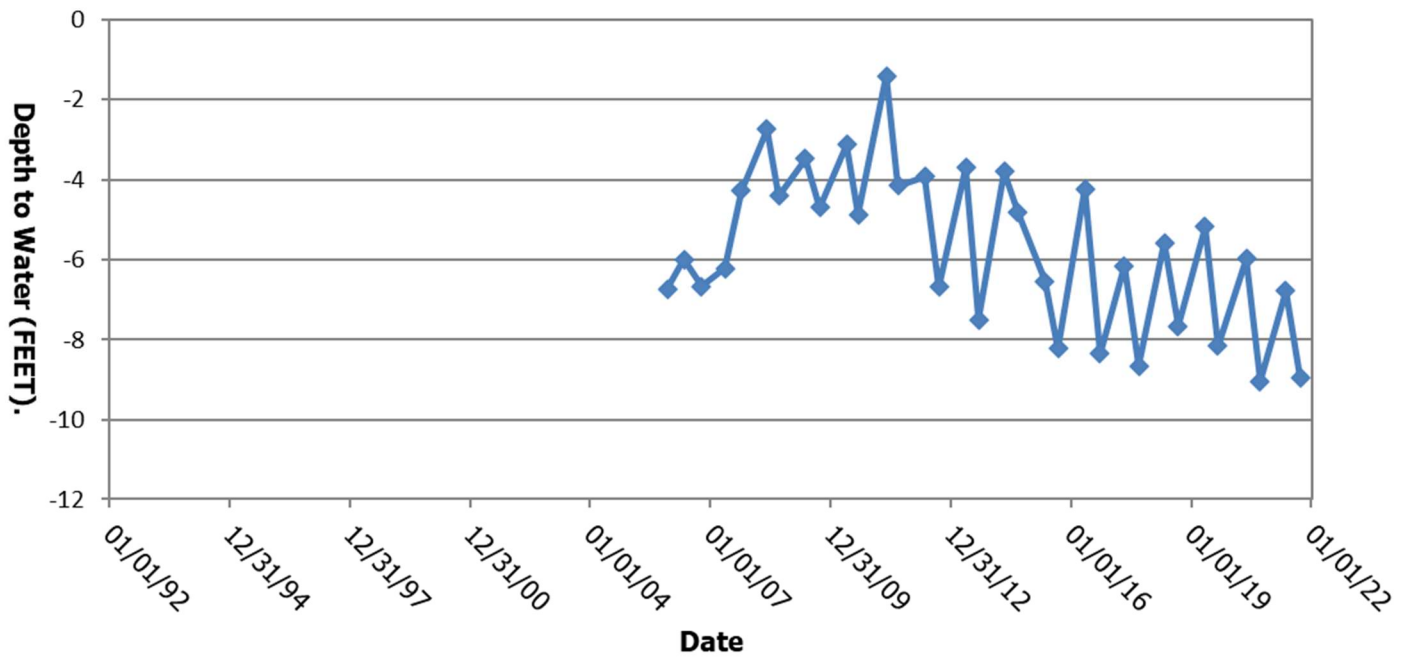
Well	Date	Depth to Water ft btoc	SPC, Field N UMHOS/CM	pH, Field N S.U.	Temp., Field N DEG-C	Iron D MG/L	Manganese D MG/L	TDS, Lab N MG/L
HGDAL3	5/13/2021	7.52	11570	7.54	8.7	< 0.06	2.78	13000
HGDAL3	9/25/2021	9.51	10760	7.1	11.8	< 0.6	2.39	12200
HGDAL4	5/13/2021	6.77	7410	7.49	8.1	< 0.06	0.04	8110
HGDAL4	9/25/2021	8.94	6950	7.5	11.8	< 0.3	4.74	8040

APPENDIX C
GROUNDWATER HYDROGRAPHS

HGDAL3



HGDAL4



APPENDIX D

SURFACE WATER QUALITY DATA

Table D.1 Stream point analytical data for water year 2021.

Location	Date	Flow N GPM	SpC, Field N UMHOS/CM	pH, Field N S.U.	Temp., Field N C	Iron TR MG/L	Manganese D MG/L	Nitrate N. N MG/L	Nitrite N. N MG/L	Selenium D UG/L	Selenium TR UG/L	TDS, Lab N MG/L	TSS N MG/L
HGSD1	4/22/2021	4210	3768	8.11	3.8					4.55	3.87	3720	
HGSD1	6/15/2021	1.2	4434	7.83	12	< 0.3	0.134	0.07	< 0.01	6.31	6.28	4080	8
HGSD1	7/21/2021	0											
HGSD1	9/9/2021	0											
HGSD3	6/15/2021	0											
HGSD3	9/9/2021	0											
Yampa Segment 13h Standards - Acute		-	-	6.5 - 9.0	-	-	4.738	100	0.05	18.4	-	-	-
Yampa Segment 13h Standards - Chronic		-	-	-	-	1	2.618	-	-	4.6	-	-	-
Agricultural Use Standards		-	-	-	-	-	0.2	100	10	20	-	-	-

Notes

Bold Analyte exceeds the Yampa Segment 13h or Agricultural Use Standards

Table D.2 NPDES Outfall monitoring data for water year 2021.

Location	Date	Flow N MGD
NPDES1H	1/12/2021	0
NPDES1H	2/9/2021	0
NPDES1H	3/23/2021	0
NPDES1H	4/23/2021	0
NPDES1H	5/18/2021	0
NPDES1H	6/17/2021	0
NPDES1H	7/22/2021	0
NPDES1H	8/4/2021	0
NPDES1H	9/9/2021	0
NPDES1H	10/22/2020	0
NPDES1H	11/3/2020	0
NPDES1H	12/2/2020	0
NPDES2H	1/12/2021	0
NPDES2H	2/9/2021	0
NPDES2H	3/23/2021	0
NPDES2H	4/23/2021	0
NPDES2H	5/18/2021	0
NPDES2H	6/17/2021	0
NPDES2H	7/22/2021	0
NPDES2H	8/4/2021	0
NPDES2H	9/9/2021	0
NPDES2H	10/22/2020	0
NPDES2H	11/3/2020	0
NPDES2H	12/2/2020	0