

II. APPENDIX D - DESCRIPTION OF THE LAND

D. Appendix D-4 - Climatology

1. Meteorological data.

The permit area located in Sheridan receives an annual average total precipitation of 14.97 inches. Receiving 43% of that during April, May, & June. Over the past 23 years precipitation per year has ranged from 9.53 inches to 22.55 inches. Average snowfall is recorded as 55.5 inches per year with the year 2000 having the least at 45.9 inches and 2001 with the most at 65 inches. The snowy season in Sheridan generally lasts for 6 months from October to April. The mean annual temperature in Sheridan is 45.8 degrees with lows reaching -30 degrees and highs exceeding 100 degrees.

Meteorological data was pulled from the National Center for Environmental Information National Oceanic and Atmospheric Administration (NOAA) showing historical data from 2000-2003. (<https://www.ncdc.noaa.gov/cdo-web/datatools/normals>)

The average wind speed in Sheridan is 8.9 miles per hour. November through May are the windier time periods in Sheridan with January being the windiest. Average hourly wind speed in January is 10.7 miles per hour. The calmest month of the year is July with wind speed average of 7 miles per hour. The wind direction varies throughout the year, predominately the wind is from the west but during July and August the wind will come from the north. (<https://weatherspark.com/h/y/3383/2018/Historical-Weather-during-2018-in-Sheridan-Wyoming-United-States#Figures-WindSpeed>)

Additional data has been included.

2. Air Quality Permit.

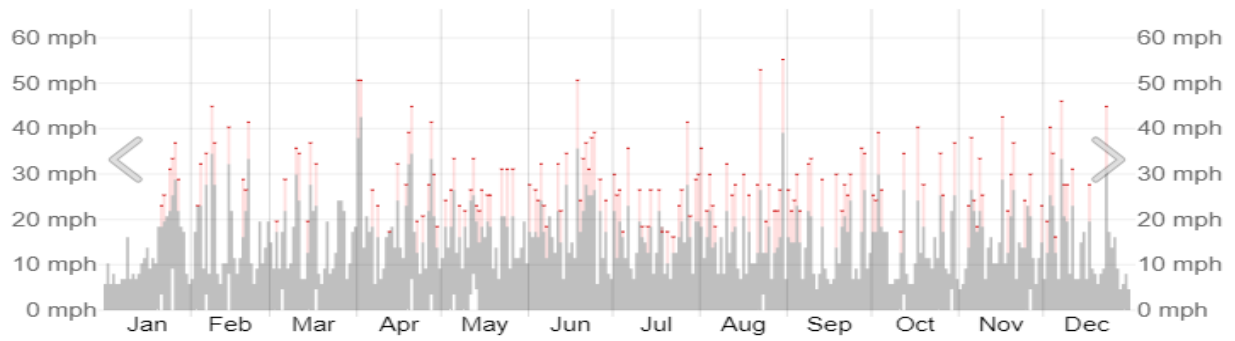
Mullinax Inc. has applied with the Wyoming DEQ Air Quality Division. Included is the application and paid receipt of the review. The Air Quality Permit is still currently being reviewed in Cheyenne.

Monthly Total Precipitation for Sheridan Area, WY (ThreadEx)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2000	1.48	0.89	0.79	1.59	3.52	1.90	0.72	0.43	1.59	1.07	0.23	1.16	15.37
2001	0.38	0.86	0.77	1.07	1.02	1.45	0.97	0.01	1.76	1.94	0.62	0.22	11.07
2002	0.34	0.53	0.94	1.60	1.02	0.65	1.96	1.28	1.60	1.36	0.71	0.18	12.17
2003	0.65	0.50	1.35	2.29	1.45	2.58	0.12	0.57	1.28	0.49	0.64	0.87	12.79
2004	0.03	1.01	0.43	0.67	0.72	1.13	1.71	0.55	2.20	1.05	0.21	0.14	9.85
2005	0.19	0.19	0.46	1.84	6.18	2.94	1.01	1.20	0.71	1.97	0.62	0.48	17.79
2006	0.12	0.40	0.92	1.21	0.98	0.53	0.10	0.30	2.82	1.38	0.53	0.27	9.56
2007	0.34	0.77	0.96	1.18	4.09	1.94	1.73	0.50	0.96	2.46	0.33	0.41	15.67
2008	0.70	0.35	0.93	1.12	4.73	2.08	0.92	0.28	1.56	1.53	0.75	0.66	15.61
2009	1.10	0.14	1.41	1.32	0.22	3.41	1.26	1.12	0.58	M	0.26	0.15	M
2010	0.08	0.35	0.61	1.77	4.43	2.68	1.54	0.79	0.25	1.11	0.52	0.20	14.33
2011	0.74	0.27	1.73	1.66	5.91	1.68	0.50	0.70	0.12	3.72	1.14	0.58	18.75
2012	0.35	0.94	0.54	1.31	2.42	0.33	0.99	0.11	T	0.95	1.09	0.50	9.53
2013	0.96	0.79	0.27	2.27	3.03	2.19	0.43	0.05	4.26	2.47	0.17	1.12	18.01
2014	0.64	1.21	1.69	1.54	1.73	2.20	1.01	1.05	1.63	0.16	1.49	0.74	15.09
2015	0.45	1.28	0.40	1.43	5.42	3.05	0.84	0.60	0.27	1.22	0.69	0.24	15.89
2016	0.56	0.89	1.59	3.36	1.06	0.39	0.22	1.44	3.71	1.45	1.28	1.00	16.95
2017	1.04	0.66	3.43	4.60	2.24	1.11	0.38	0.43	1.89	0.34	1.54	1.11	18.77
2018	0.63	1.53	1.50	1.83	3.57	1.43	1.21	1.30	1.21	1.69	0.83	0.32	17.05
2019	0.70	0.37	0.44	1.86	6.34	1.35	1.40	0.72	1.88	1.37	1.37	0.21	18.01
2020	0.38	1.38	0.55	1.14	0.74	1.73	0.06	0.53	1.37	2.62	0.04	0.28	10.82
2021	0.46	1.60	1.47	2.60	1.11	0.32	0.57	0.90	0.19	2.56	0.15	1.02	12.95
2022	0.28	0.88	0.83	2.51	3.16	1.48	0.37	0.55	2.24	1.04	1.11	1.03	15.48
2023	1.09	1.35	1.65	1.26	2.07	5.36	1.36	1.98	2.78	3.06	0.49	0.10	22.55
2024	M	M	M	M	M	M	M	M	M	M	M	M	M
Mean	0.57	0.80	1.07	1.79	2.80	1.83	0.89	0.72	1.54	1.61	0.70	0.54	14.96
Max	1.48 2000	1.60 2021	3.43 2017	4.60 2017	6.34 2019	5.36 2023	1.96 2002	1.98 2023	4.26 2013	3.72 2011	1.54 2017	1.16 2000	22.55 2023
Min	0.03 2004	0.14 2009	0.27 2013	0.67 2004	0.22 2009	0.32 2021	0.06 2020	0.01 2001	T 2012	0.16 2014	0.04 2020	0.10 2023	9.53 2012

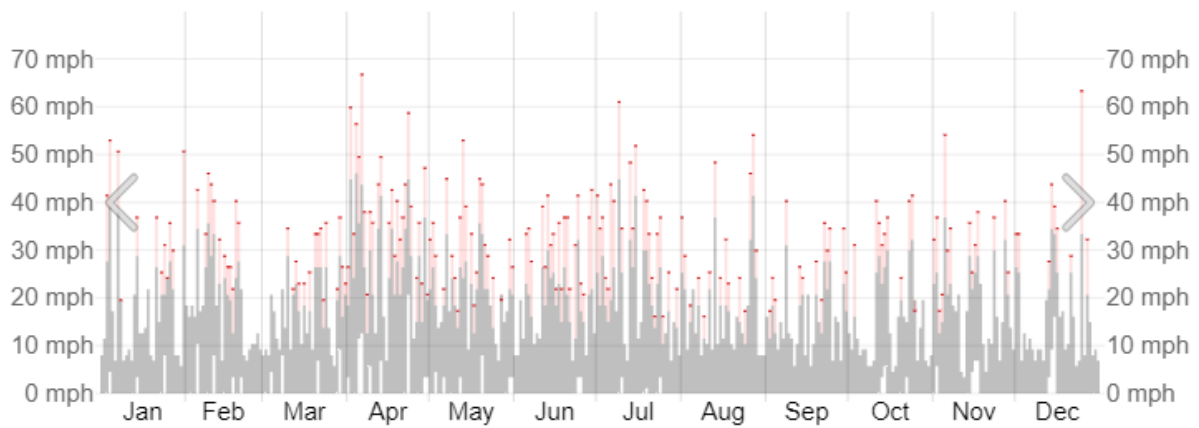
Monthly Total Snowfall for Sheridan Area, WY (ThreadEx)

Year	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Season
1999-2000	0.0	0.0	T	1.0	T	7.2	21.1	11.9	3.8	0.9	T	T	45.9
2000-2001	T	0.0	9.5	1.5	3.3	19.6	5.7	16.6	4.9	3.9	T	0.0	65.0
2001-2002	0.0	M	M	M	M	M	3.3	M	M	M	M	M	M
2002-2003	M	M	M	M	M	M	3.3	M	M	M	M	M	M
2003-2004	M	M	M	M	M	M	M	M	M	M	M	M	M
2004-2005	M	M	M	M	M	M	M	M	M	M	M	M	M
2005-2006	M	M	M	M	M	M	M	M	M	M	M	M	M
2006-2007	M	M	M	M	M	M	M	M	M	M	M	M	M
2007-2008	M	M	M	M	M	M	M	M	M	M	M	M	M
2008-2009	M	M	M	M	M	M	M	M	M	M	M	M	M
2009-2010	M	M	M	M	M	M	M	M	M	M	M	M	M
2010-2011	M	M	M	M	M	M	M	M	M	M	M	M	M
2011-2012	M	M	M	M	M	M	M	M	M	M	M	M	M
2012-2013	M	M	M	M	M	M	M	M	M	M	M	M	M
2013-2014	M	M	M	M	M	M	M	M	M	M	M	M	M
2014-2015	M	M	M	M	M	M	M	M	M	M	M	M	M
2015-2016	M	M	M	M	M	M	M	M	M	M	M	M	M
2016-2017	M	M	M	M	M	M	M	M	M	M	M	M	M
2017-2018	M	M	M	M	M	M	M	M	M	M	M	M	M
2018-2019	M	M	M	M	M	M	M	M	M	M	M	M	M
2019-2020	M	M	M	M	M	M	M	M	M	M	M	M	M
2020-2021	M	M	M	M	M	M	M	M	M	M	M	M	M
2021-2022	M	M	M	M	M	M	M	M	M	M	M	M	M
2022-2023	M	M	M	M	M	M	M	M	M	M	M	M	M
2023-2024	M	M	M	M	M	M	M	M	M	M	M	M	M
Mean	T	0.0	4.8	1.3	1.7	13.4	8.4	14.3	4.4	2.4	T	T	55.5
Max	T 2000	0.0 2000	9.5 2000	1.5 2000	3.3 2000	19.6 2000	21.1 2000	16.6 2001	4.9 2001	3.9 2001	T 2001	T 2000	65.0 2001
Min	0.0 2001	0.0 2000	T 1999	1.0 1999	T 1999	7.2 1999	3.3 2003	11.9 2000	3.8 2000	0.9 2000	T 2001	0.0 2001	45.9 2000

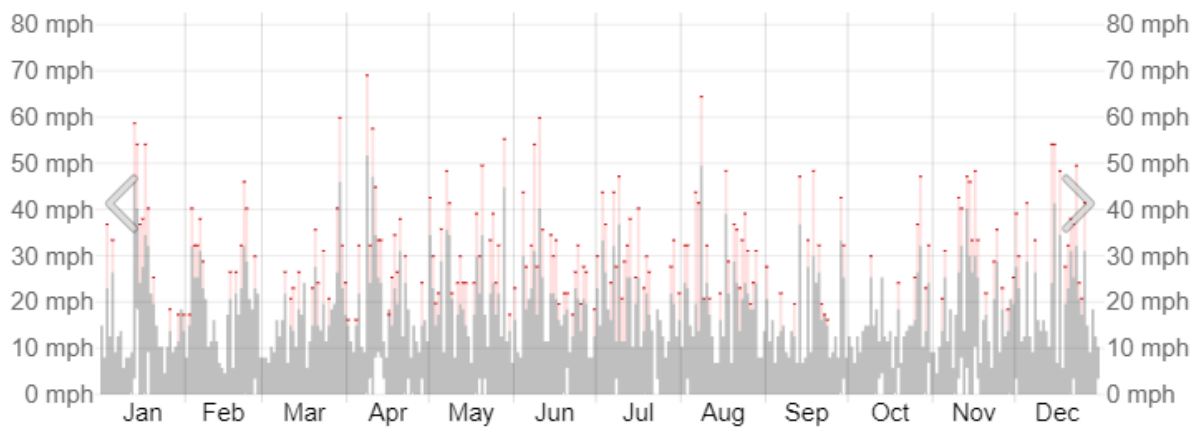
Monthly Mean Avg Temperature for Sheridan Area, WY (ThreadEx)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2000	23.7	28.2	37.7	44.8	52.9	59.6	72.4	70.3	57.6	45.2	23.4	17.9	44.5
2001	23.8	16.0	33.6	45.3	55.5	62.7	73.8	72.8	61.0	44.9	36.3	25.9	46.0
2002	25.6	29.6	22.8	40.5	50.0	64.0	74.8	65.0	58.1	38.0	35.6	28.6	44.4
2003	29.9	21.6	32.0	47.2	51.6	59.4	73.5	74.1	56.8	50.8	28.1	26.6	46.0
2004	21.7	29.2	41.2	46.8	52.9	60.6	68.7	65.7	57.7	46.7	35.6	31.3	46.5
2005	23.2	31.2	39.0	44.0	51.0	62.2	72.0	65.8	60.2	47.7	37.5	23.3	46.4
2006	35.4	26.3	35.3	48.1	54.5	66.7	75.7	70.1	57.0	43.9	36.3	28.8	48.2
2007	22.1	24.0	41.0	42.4	54.6	63.4	75.8	70.9	59.3	48.4	35.1	22.8	46.7
2008	19.5	26.8	33.3	39.9	50.8	58.5	69.8	69.2	54.9	45.6	39.3	16.8	43.7
2009	25.9	30.7	31.5	41.5	53.3	58.2	67.1	66.4	62.2	37.7	37.5	15.6	44.0
2010	22.8	24.7	39.9	43.0	48.1	60.5	68.7	69.0	58.6	52.4	29.7	22.0	44.9
2011	23.1	20.2	35.0	41.3	48.0	60.5	72.4	71.2	60.8	49.9	31.3	25.6	44.9
2012	28.2	27.5	45.5	47.4	51.8	65.9	75.8	70.0	61.3	44.6	34.4	23.8	48.0
2013	24.7	24.5	33.9	37.7	54.1	62.3	71.9	72.3	62.3	41.9	33.3	19.2	44.8
2014	26.6	16.5	32.9	43.8	53.6	58.9	70.1	67.5	58.1	50.3	28.2	25.0	44.3
2015	26.1	29.8	42.1	44.2	50.2	65.9	68.8	69.3	64.0	51.1	32.4	25.7	47.5
2016	27.0	36.8	39.9	46.5	52.6	68.3	72.2	68.6	59.7	48.6	39.7	15.4	47.9
2017	15.8	29.1	41.0	44.4	53.2	63.3	74.2	67.3	57.3	45.2	35.2	23.7	45.8
2018	24.9	13.3	32.4	41.2	57.5	62.3	71.2	67.5	57.4	44.0	33.0	28.0	44.4
2019	27.0	12.0	29.3	44.0	48.1	61.2	69.4	69.3	60.1	37.0	31.2	29.1	43.1
2020	28.1	24.6	36.4	39.7	53.0	64.7	72.1	72.1	61.0	41.4	38.1	32.1	46.9
2021	29.0	15.2	37.1	42.7	51.6	69.1	75.6	68.6	62.9	49.2	41.5	26.9	47.4
2022	27.8	24.8	36.5	39.1	50.7	62.3	73.9	73.6	64.4	48.7	25.9	18.4	45.5
2023	26.7	22.9	23.3	40.7	57.8	62.6	69.6	69.6	62.4	45.2	38.7	34.5	46.2
2024	M	M	M	M	M	M	M	M	M	M	M	M	M
Mean	25.4	24.4	35.5	43.2	52.4	62.6	72.1	69.4	59.8	45.8	34.0	24.5	45.8
Max	35.4 2006	36.8 2016	45.5 2012	48.1 2006	57.8 2023	69.1 2021	75.8 2007	74.1 2003	64.4 2022	52.4 2010	41.5 2021	34.5 2023	48.2
Min	15.8 2017	12.0 2019	22.8 2002	37.7 2013	48.0 2011	58.2 2009	67.1 2009	65.0 2002	54.9 2008	37.0 2019	23.4 2000	15.4 2016	43.1



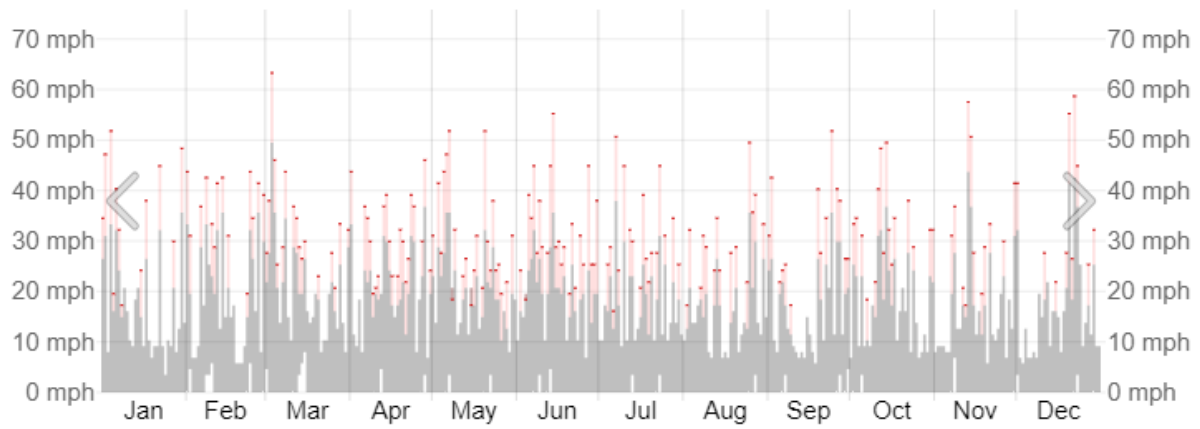
WIND SPEED SHERIDAN WY 2023



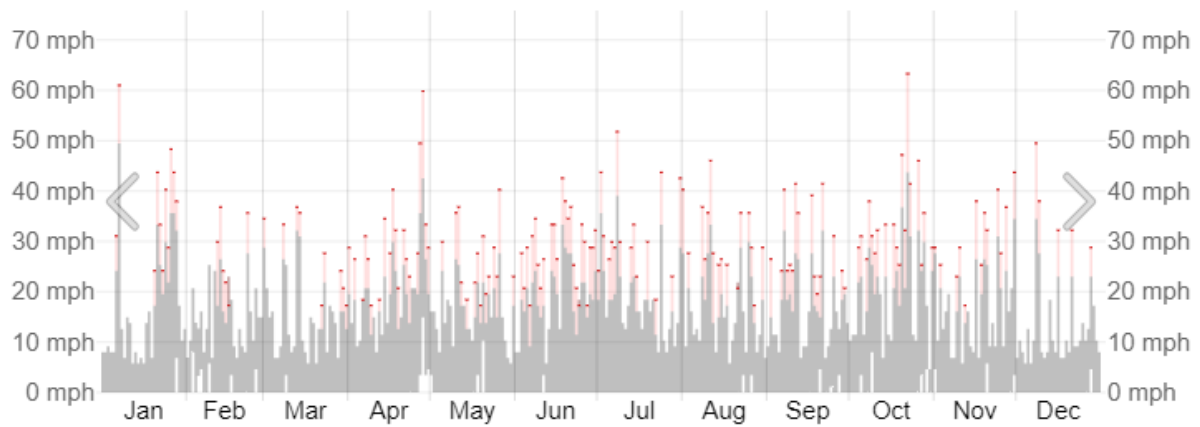
WIND SPEED SHERIDAN WY 2022



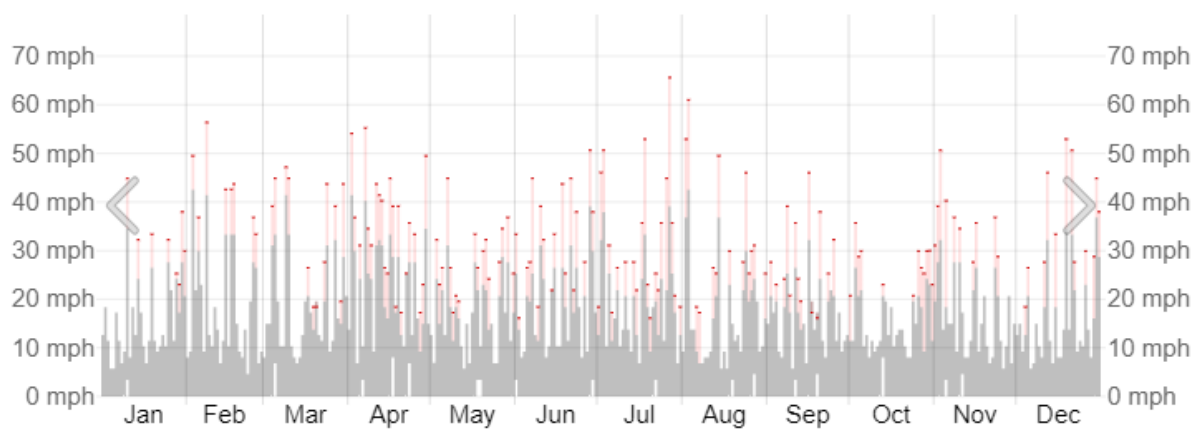
WIND SPEED SHERIDAN WY 2021



WIND SPEED SHERIDAN WY 2020



WIND SPEED IN SHERIDAN WY 2019



WIND SPEED IN SHERIDAN WY 2018



Mark Gordon, Governor

Department of Environmental Quality

To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.



Todd Parfitt, Director

November 14, 2022

Mr. Nathan Mullinax
Mullinax Inc.
PO Box 2044
Sheridan, WY 82801

Permit Application Receipt Notice
Application No. A0014315

Dear Mr. Mullinax:

This is to confirm the receipt of your permit application for the Forbes Pit (F031016) located in Sheridan County, Wyoming. The application was received on 11/11/2022. Please refer to Application Number, A0014315, in any future correspondence regarding this application.

For your information, a permit to construct or modify must be issued prior to any work beginning on the facility. The Division defines earthwork, pouring of foundations, etc. to be work on the facility and therefore a violation of Chapter 6, Section 2(a)(1) requirements, when conducted without a permit.

The application will be reviewed within thirty (30) days of receipt, and you will be notified as to whether or not the application is complete. If the application is complete, a decision will be made to either approve or disapprove your request within sixty (60) days of the determination that the application is complete. Once the decision to approve your request is made, a thirty (30) day public comment period is required, after such time a permit will be issued. If the decision is made to disapprove your request, you will be so notified and provided with the reason(s) for denial.

In accordance with Chapter 6, Section (o), applicants are assessed a minimum application fee of \$500 along with a minimum hourly fee of \$75 per hour. Additionally, the Division will charge a fee for newspaper-publishing costs. If you should have any questions concerning this matter, please feel free to contact the Division at 307-777-7391. Please have your application number handy.

Sincerely,

Andrew Keyfauver
NSR Program Manager
Air Quality Division



Wyoming Department of Environmental Quality



Air Quality Division Permit Application Review Fees

Pay Key: N/A

Vendor #: N/A

Invoice Number: A0014315

Invoice Type: Initial Invoice

Billing Date: 12/28/2022

Facility Name: Forbes Pit

Facility ID: F031016

Company Name: Mullinax Inc.

Company ID: CMP100528

Application Number(s): A0014315

Permit Number: P0035944

Invoice Details

Current Fixed Charges	
Standard Fees	\$500.00
Current Staff Review Charges	
9.0 hour(s) at \$75.00 (Hourly rate as of July 1, 2021)	\$675.00
Payments and Credits	
TOTAL AMOUNT DUE	\$1,175.00

Payment of fee is due on receipt of this bill.

Payment of initial fee is required before the issuance of any permit.

Please reference the application number on your payment to ensure proper handling.

Make Check Payable to: **Wyoming DEQ - Air Quality Division**
200 W. 17th St. 3rd Floor
Cheyenne, WY 82002

Authority: W.S. 35-11-211; Chapter 6, Section 2(a)(v) and Section 2(o) of the Wyoming Air Quality Standards and Regulations (WAQSR). Explanation: In accordance with the above referenced statute and regulations a fee is to be assessed on the applicant for costs incurred by the Department in reviewing and issuing permits under Chapter 6, Section 2 of the WAQSR. An initial billing is to be based on the cost of reviewing the application up to the time an initial decision is made and a final billing is to be made for any additional costs incurred (after the date of public notice) in reaching a final decision, including the costs of issuing a permit.