



Twentymile Coal, LLC

29515 Routt County Road 27
Oak Creek, CO 80467
970.879.3800

February 13, 2020

Ms. Tabettha Lynch
Environmental Protection Specialist
Division of Reclamation, Mining, and Safety
1313 Sherman Street - Room 215
Denver, Colorado 80203
(970) 866-3567 X8147

Re: Twentymile Coal, LLC (TC) – Foidel Creek Mine (C-82-056), 2019 Annual Reclamation Report

Dear Ms. Lynch:

Enclosed is the 2019 Annual Reclamation Report (ARR) for the Foidel Creek Mine. During 2019, several activities were permitted and initiated under Technical and Minor Revision approvals (summarized as follows), with most of the permitted activities occurring within the existing Permit Area and within existing disturbance areas, with changes in acreage noted below:

- TR18-92, Panel Extension (submitted 10/04/18, approved 02/08/19, affected area increased by 35 acres, and permit acreage increased by 40 acres)
- MR19-312, Additional Booster Pump and Enclosure (submitted 03/19/19, approved 03/22/19, no new disturbance)
- TR19-93, Wash Plant Additional Thickener Tank Design Modification (submitted 03/05/19, approved 04/17/19, no new disturbance)
- MR19-313, Thickener Pipeline Route Modification (submitted 04/19/19, approved 05/08/19, no new disturbance)
- TR16-84, 6MN Passive Water Treatment System (Wetlands) (submitted 7/22/16 approved 6/18/19, increase in disturbed area by 19 acres)
- MR19-314, Passive Treatment Inlet Pipeline Route Modification (submitted 07/08/19, approved 08/05/19, the disturbed area will increase by 1.40 acres)
- MR19-315, Passive Treatment Inlet Pipeline Route MOD 2 (submitted 10/03/19, approved 10/18/19, the disturbed area will increase by 1.40 acres)

Changes in permitted, disturbed, and affected area acreages during 2019 included a total increase of 21.8 acres for permitted disturbed acreage resulting in a total of 775.0 acres disturbed. Additional permitted area during 2019 resulted in an increase of 40 acres totaling 22,647 acres along with an increase of 35 acres for affected acreage surface (TR18-92). Please refer to the latest maps and text associated with the revisions referenced above, for specific details.

Key mining and related activities occurring during 2019 included:

- Ongoing development and longwall mining operations in the Wolf Creek Reserve (Panel 8East)
- Ongoing refuse placement activities.
- Completed secondary Thickener Underflow Pipeline to current SWMD boreholes.
- New Thickener Tank and associated structures and systems were completed.
- Sedimentation Ponds B and D were dredged to remove accumulated sediment as part of our ongoing drainage maintenance program
- Completed additional field sampling for multi-year drainage basin level water quality and aquatic life study to support water discharge permit renewals and future discharge permitting
- 6MN passive treatment system was fully constructed and plants were planted.
- New Screening build continues to be erected for stocker coal screening and truck loading.

Under our ongoing noxious weed control program, TC contracted with Osborne Industries to complete noxious weed control spraying for both active and bond-released areas (approximately 100 acres), consistent with the approved Noxious Weed Control Plan (MR06-206). Areas sprayed for weeds are shown on the most recent map 29, Reclamation Map, and/or listed as follows (spot or area spraying, as appropriate):

- Substations electrical installations, propane storage areas, and surface conveyors (bare-ground spraying to address combustion hazard per MSHA)
- Both sides (approximately 30 to 40 feet) of facility roads
- Soil stockpiles
- Facility pad areas (e.g. 9RT, 10RT, 5MN, 6MN, 13LT, Fish Creek Borehole, 16LT, 18LT)
- Select areas on CRDA and associated soil/cover material stockpiles
- Pond embankments and perimeters

The spring spraying program (June) focused on spot or area spraying for control of white-top (hoary cress), houndstongue, knapweed, and mullein using Escort, Liberate, and 2,4D. The fall spraying program (August - September) focused on control of thistle, any residual weeds, and toadflax, which had previously been found on the site only as small, isolated occurrences, using 2,4D in combination with Tordon. Spraying was also conducted during the fall, within and around electrical installations, conveyors, and propane storage areas using Esplanade, Buccaneer, and Piper to eliminate all vegetation, as a fire-safety and MSHA consideration. Also part of the fall weed spraying is application towards all thistle varieties. As part of our ongoing land management programs, TC conducted managed livestock grazing activities (approximately 2,000 steers) on the bond-released areas.

There are several areas on the attached "2019 Annual Reclamation Report Disturbed Acreage" summary that are identified as "Reclaimed". These areas have previously been regraded and stabilized with vegetation, however, TC has not pursued bond release for these areas due to the potential for re-disturbance in conjunction with required access and site maintenance activities.

Permit approvals during 2019 resulted in a decrease (-\$11,771.73, TR19-93), and subsequent minor increases (MR's below) in the calculated reclamation liability and required surety coverage, summarized as follows:

- TR16-84, 6MN Passive Water Treatment System (Wetlands) (\$87,272)

- TR19-93, Wash Plant Additional Thickener Tank Design Modification (-\$11,771.73)
- TR18-92, Panel Extension (\$0)
- MR19-312, Additional Booster Pump and Enclosure (+\$7,927)
- MR19-313, Thickener Pipeline Route Modification (\$0)
- MR19-314, Passive Treatment Inlet Pipeline Route Modification (+\$3,229)
- MR19-315, Passive Treatment Inlet Pipeline Route MOD 2 (+3,041)

Attached is the standard form (CDRMS) Annual Reclamation Report for 2019 and an updated disturbance summary. If you have any questions or require further information, please feel free to contact me directly at (970) 870-2718.

Sincerely,
For Twentymile Coal, LLC



Miranda Kawcak
Manager Environmental

Attachments

cc: Ed Brady/TC

Colorado Division of Reclamation, Mining and Safety

Annual Reclamation Report for Calendar Year – 2019

Foidel Creek	CO-82-056	Twentymille Coal, LLC
Mine Name	Permit Number	Permittee
29515 RCR27 Oal Creek, Colorado 90467		
Address		

This report, required by Rule 2.04.13, is due by February 15 of each year, or other date, as agreed upon by the Division. It should include text, discussion, and maps, at a minimum, in addition to any other reclamation monitoring data as required by the approved permit. The location of the acreage reported under each land status category and year of seeding (if applicable) should be clearly identified on a map included with the report.

Land Category	Last Year's Cumulative Total (from last year's ARR)	This Calendar Year			Cumulative Total
		Acres Added (+)	Acres Subtracted (-)		
Acreage in Active Mining Areas ¹	N/A	N/A	N/A	=	N/A

Land Category	Last Year's Cumulative Total (from last year's ARR)	This Calendar Year			Cumulative Total
		Acres Added (+)	Acres Subtracted (-)		
Acres Disturbed ²	753.2	21.80	0	=	775.0
Acres Backfilled and Graded	169.2	0	0	=	169.2
Acres Topsoiled	169.2	0	0	=	169.2

Acreage in Long-term Facilities ³	Last Year's Cumulative Total (from last year's ARR)	This Calendar Year			Cumulative Total
		Acres Added (+)	Acres Subtracted (-)		
Non-Permanent Facilities	584	21.8	0	=	605.8
Permanent Facilities (permitted)	0	0	0	=	0
Totals	584			=	605.8

Acres Seeded (permanent)	Last Year's Cumulative Total (from last year's ARR)	This Calendar Year			Cumulative Total
		Acres Added (+)	Acres Subtracted (-)		
9 Years and Less	138.0	0	0	=	138.0
10 Years and Greater	31.2	0	0	=	31.2
Totals	169.2			=	169.2

Bond Release	Last Year's Cumulative Total (from last year's ARR)	This Calendar Year			Cumulative Total
		Acres Added (+)	Acres Subtracted (-)		
Phase I Released	14.3	0	0	=	14.3
Phase II Released	0	0	0	=	0
Phase III Released	0	0	0	=	0

¹Includes pits, topsoil stripped areas in advance of pits, and spoil not backfilled and graded

²Surface Mine Acres Disturbed = B&G + Long-Term Facilities + Active Mining Areas; Underground Mine Acres Disturbed = B&G + Long-Term Facilities; Separately-permitted Loadouts = B&G + Long-Term Facilities

³Includes haul, access and light-use roads, temporary dams and impoundments; permanent dams and impoundments; diversion and collector ditches, water and air monitoring sites; topsoil stockpiles; overburden stockpiles; repair, storage and construction areas; office area, repair shops, and parking; coal stockpiles, loading, and processing areas; railroads; coal conveyors; refuse piles and coal mine waste impoundments; head-of-hollow fills; valley fills; ventilation shafts and entryways; and non-coal waste disposal area (garbage dumps and coal combustion by-products disposal areas).

February 8, 2019

Twentymile Coal, LLC - Foidel Creek Mine

<u>AREA</u>	<u>DIST. ACREAGE</u>	<u>STATUS</u>
SANDSTONE SUBSTATION	1.00	ACTIVE
FISH CREEK BOREHOLE (W/ROAD)	3.50	ACTIVE
SURFACE FACILITIES	326.90	ACTIVE
COAL REFUSE PILE	69.70	ACTIVE
DRILL PAD 95M001	0.30	ACTIVE
VENT SHAFT EMD	2.80	RECLAIMED
EMD DEWATERING BOREHOLE (W/ROAD)	3.50	ACTIVE
ESCAPE SHAFT	2.50	ACTIVE
ROCK DUST TANK	0.10	ACTIVE
LIESKE SUBSTATION	0.20	ACTIVE
FACILITIES ALTERATION (TRUDY'S CORNER)	1.50	ACTIVE
NMD POWER BOREHOLE	1.80	ACTIVE
NMD VENT SHAFT W/ ACCESS RD	4.40	ACTIVE
FISH CREEK BOREHOLE WATERLINE	1.20	ACTIVE
COMPRESSOR LINE BOREHOLE	0.10	ACTIVE
18 RIGHT INTAKE SHAFT	18.80	RECLAIMED
BATHOUSE ADDITION	0.70	ACTIVE
YVEA CAPACITOR INSTALLATION	0.20	ACTIVE
BATCH-WEIGH LOADOUT ROAD	0.50	ACTIVE
SUBTOTAL - Active (Thru 2004)	439.70	
 FISH CREEK TIPPLE	13.50	RECLAIMED
FISH CREEK BOREHOLE WATER HANDLING	0.10	RECLAIMED
SOUTHWEST BOREHOLE	1.20	RECLAIMED
DRILL PADS (BARRICADE CHAMBER)	0.50	RECLAIMED
TRENCH AND BERM	27.30	RECLAIMED
MINE WATER RETURN LINE	7.00	RECLAIMED
8 & 7 RIGHT CROSS-PANEL ENTRY BACKFILL	2.50	RECLAIMED
TROUT CREEK SANDSTONE TEST HOLES	1.20	RECLAIMED
SUBTOTAL - Reclaimed (Thru 2004)	53.30	
2004 TOTAL :	493.00	
 6MN INTAKE SHAFT FACILITY (TR05-48)	13.50	ACTIVE
6MN UTILITY BOREHOLES (MR05-198) 0.92 ac dist. within 6MN area	0.00	ACTIVE
COAL FINES CLEAN-UP (MR06-211)	1.50	RECLAIMED
6MN POND MODIFICATIONS (TR06-57)	0.20	ACTIVE
6MN WATER TRANSFER PIPELINE (MR07-224)	7.10	RECLAIMED
THICKENER UNDERFLOW PIPELINE (TR07-60)	0.60	ACTIVE
6MN MINE WATER STORAGE RSVR. (TR07-61)	12.30	ACTIVE
10RT DEWATERING BOREHOLE 2 (MR08-228)	0.20	ACTIVE
MINE DEWATERING MODIFICATIONS (MR08-230)	4.20	ACTIVE
REFUSE PILE CLAY STAGING AREA (MR08-233)	5.00	ACTIVE
18LT SHAFT INSTALLATION (TR09-66)	5.60	ACTIVE
18LT SHAFT GEOTECH INVEST. (MR09-235) 0.10 ac dist. within 18LT Area	0.00	RECLAIMED
18RT/6MN SHAFT HEATERS & MISC (MR09-236)	0.30	ACTIVE
COAL REFUSE DISPOSAL AREA EXP. (TR09-67)	80.00	ACTIVE/RECL.
6RT THICKENER UNDERFLOW (TR09-69)	5.80	ACTIVE
19RT DEWATERING INSTALLATION (TR10-73)	7.50	ACTIVE
18LT MINE WATER PIPELINE (TR'S 09-70/10-74)	7.50	RECLAIMED
DITCH G-6 EXTENSION (TR10-76)	0.30	RECLAIMED
15LT VENT SHAFT (TR11-77)	2.30	ACTIVE
16LT UTILITY BOREHOLE (TR11-78, MR12-260)	13.60	ACTIVE
WMD EMERGENCY BOREHOLE (MR11-253)	1.70	ACTIVE

OVERLAND CONVEYOR GEOTECH (MR11-254)	0.10	ACTIVE
WMD EXPLOR. PROGRAMS (MR'S 11-256/12-261)	2.00	ACTIVE
6MN RESERVOIR RELIEF DRAIN (MR11-259)	0.20	ACTIVE
WCR DRILLING PROGRAM (MR's 12-267/269/271, 14-275/277/278/280/281)	47.70	RECLAIMED
7RT/2MN/SWMD TUF BOREHOLES (TR16-86, MR's13-270/273) 3.3 ac. Permitted/not disturbed	0.60	ACTIVE/PEND.
5MN UTILITY BOREHOLE& WATER PIPELINE (MR14-283/285, 15-288)	8.60	ACTIVE
10-EAST EMERGENCY AIR BOREHOLE (MR15-289) 1.5 ac. Permitted/not disturbed	0.00	PENDING
13-LEFT OUTBY UTILITY BOREHOLE (MR15-291/292)	3.50	ACTIVE
6MN PASSIVE TREATMENT SYTEM GEOTECH (MR16-295)	0.10	RECLAIMED
9E UTILITY BOREHOLE (MR16-296)	3.70	ACTIVE
FISH CREEK BOREHOLE COAL FINES CLEANUP (TR18-90, MR16-297)	0.30	RECLAIMED
SWMD\WMD TUF BOREHOLES AND PIPELINES (TR17-88)	23.80	ACTIVE
9-EAST ADDITIONAL UTILITY BOREHOLES (MR17-304)	0.40	ACTIVE
STOKER COAL SCREENING TEST (MR17-305)	0.00	ACTIVE
SANDSTONE SUB THICKENER UNDERFLOW BOREHOLE AND PIPELINE (MR17-305)	0.00	ACTIVE
WASH PLANT ADDITIONAL THICKENER TANK DESIGN MODIFICAITION (TR19-92)	0.00	ACTIVE
ADDITONAL BOOSTER PUMP AND ENCLOSURE (MR19-312)	0.00	ACTIVE
THICKNER PIPELINE ROUTE MODIFICATION (MR19-313)	0.00	ACTIVE
PASSIVE TREATMENT INLET PIPELINE ROUTE MODIFICATION (MR19-314)	1.40	ACTIVE
PASSIVE TREATMENT INLET PIPELINE ROUTE MODIFICATION 2 (MR19-315)	1.40	ACTIVE
6MN PASSIVE WATER TREATMENT SYSTEM (TR16-84)	19.00	ACTIVE
2005-2019 Additions	282.00	

CUMULATIVE TOTAL 2019:

775.00

Note: The acreage figures presented are based on information contained in previous Annual Reclamation Reports, as-built construction information, and Minor and Technical Revision approval information.

#1365

Osborn Industries LLC

Date: 6-11-19

2 of 2

Job Name: 20mle

Address:

Equipment working properly	✓	Location Contact info: Miranda Kawrak
Hoses serviceable	✓	
Pumps serviceable	✓	
Filters serviceable	✓	
Tanks secured properly	✓	
Proper PPE available	✓	
Notes: Substations		

Temperature 60-70°	Wind 10mph	Direction Sunny	Conditions Clear	Spraying Time 11am-4:45
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Targeted Species BG

Type of Site Treated:	Rangeland	Industrial	Ag Crop	ROW	Turf
Chemical Name	EPA Reg #	Applied Amount / Acre	Total Product Applied		
Esplanade	4321516	7oz	17.5		
Pokers	228-534	64oz	160		
Crop oil	-	64oz/100gal	160		
red dye	-	4oz/100gal	100z		

Method of Application	ATV	UTV	Truck	Tractor	Backpack	Horse	Other
Gallons per acre: 100	Dilution used: water		Number of Applicators: 2				
Truck Number: 5	ATV/UTV number: -		Billable Hours 7am-8:30am & 8.5x2				

10am-5pm = 17hrs

Loads: 11 1/2 (50gal)

Qualified Supervisor:

Date 6-11-19

Applicator:

Imelda

Date

Osborn Industries LLC

#1365

Date: 6/12/19	2 of 2
Job Name: 20 mile	
Address:	

Equipment working properly	X	Location Contact info:
Hoses serviceable	X	
Pumps serviceable	X	
Filters serviceable	X	
Tanks secured properly	X	
Proper PPE available	X	
Notes: FINISH BACK WOUND LEFT ONE FROM 6/11/19		

Temperature 65	Wind 3 mph	Direction EAST	Conditions Clear	Spraying Time 10:45
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Targeted Species	WHITE TOP BLOOMED ZONAR, THISSLE / MUSTARD, BULL
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Type of Site Treated:	Rangeland	Industrial	Ag Crop	ROW	Turf
Chemical Name	EPA Reg #	Applied Amount / Acre	Total Product Applied		
ESCORT	432.1549	10%	2.5 oz		
LIBERATE	N/A	32 oz / 100 G	32 oz		

Method of Application	ATV	UTV	Truck	Tractor	Backpack	Horse	Other
Gallons per acre: 40	Dilution used: WATER		Number of Applicators: 2				
Truck Number: 5	ATV/UTV number:		Billable Hours 7:00am - 5:00 pm				

100G TANK		
ESCORT - 2.5 oz	Finished by load from 6/11	
LIBERATE - 32 oz		
LOADS		
1		

Qualified Supervisor: [Signature]	Date: 6/12/19
Applicator: TUNGIDA HERNANDEZ	Date: 6/12/19

Osborn Industries LLC

#1365

Date: 11 June 19	1 of 2
Job Name: Peabody	
Address:	

Equipment working properly	✓	Location Contact info: - Miranda Kawcak
Hoses serviceable	✓	
Pumps serviceable	✓	Notes:
Filters serviceable	✓	
Tanks secured properly	✓	
Proper PPE available	✓	

Temperature 55	Wind 10 mph	Direction	Conditions Clear	Spraying Time 8:30a -
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Targeted Species	white top - hounds tongue - mullen - Bull thistle musk thistle - Canada thistle
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Type of Site Treated:	Rangeland	<u>Industrial</u>	Ag Crop	ROW	Turf
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Chemical Name	EPA Reg #	Applied Amount / Acre	Total Product Applied
Escort			
Escort	432-1549	102	15.02
Liberate	NA	3202/100Gal	19202

Method of Application	ATV	<u>UTV</u>	<u>Truck</u>	Tractor	Backpack	Horse	Other
Gallons per acre: 40G/A	Dilution used: Water		Number of Applicators: 3				
Truck Number: 13	ATV/UTV number:		Billable Hours 7:00 - 5pm = 10 x 3				

		10 x 3 = 30 hrs	
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Escort	2.502	loads
Liberate	3202	411

Qualified Supervisor: <u>[Signature]</u>	Date: 6-11-19
Applicator: <u>[Signature]</u>	Date: 11 June 19
<u>[Signature]</u>	6/11/19

Commercial applicators are licensed by the Colorado Department of Agriculture

Osborn Industries LLC

#1365

Date: 6/12/19	of
Job Name: 20 mile	
Address:	

Equipment working properly	✓	Location Contact info: Miranda Kawcak
Hoses serviceable	✓	
Pumps serviceable	✓	
Filters serviceable	✓	
Tanks secured properly	✓	
Proper PPE available	✓	
Notes:		

Temperature 55	Wind 10	Direction S	Conditions Clear	Spraying Time 8:00 am - 4:30 pm
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Targeted Species	Thistle, white top, Hawks lounge
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Type of Site Treated:	Rangeland	Industrial	Ag Crop	ROW	Turf
Chemical Name	EPA Reg #	Applied Amount / Acre	Total Product Applied		
Escort	432-1549	1oz	15oz		
liberate	NA	32oz/100g	192oz		

Method of Application	ATV	UTV	Truck	Tractor	Backpack	Horse	Other
Gallons per acre: 40g	Dilution used: Water		Number of Applicators: 3				
Truck Number: 3	ATV/UTV number: Habsta		Billable Hours 7:00 - 4:30 = 9.5hr				
loads Handspray			Lynn + Chris X3				
Escort - 2.5oz	111						
liberate - 32oz							

Suea has this
did paper work

Qualified Supervisor:	<i>[Signature]</i>	Date	6-12-19
Applicator:	Suea Andrews	Date	6/12/19
	Lynn Carroll	Date	6/12/19

Commercial applicators are licensed by the Colorado Department of Agriculture

Osborn Industries LLC

#1365

Date: 13 June 19	of
Job Name: 20 mile	
Address:	

Equipment working properly	✓	Location Contact info: Miranda Kawcak
Hoses serviceable	✓	
Pumps serviceable	✓	
Filters serviceable	✓	
Tanks secured properly	✓	
Proper PPE available	✓	
Notes:		

Temperature 55	Wind 10 mph	Direction ENE	Conditions partly cloudy	Spraying Time 8:00a - 4:30
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Targeted Species: white top, brown's longear, thistle-neck, mall, yellow toadflax - Canada thistle

Type of Site Treated:	Rangeland	Industrial	Ag Crop	ROW	Turf
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Chemical Name	EPA Reg #	Applied Amount / Acre	Total Product Applied
Escort	432-1549	10Z	150Z
Liberate	NA	320Z / 100G	960Z

Method of Application	ATV	UTV	Truck	Tractor	Backpack	Horse	Other
Gallons per acre: 40G/A	Dilution used: water		Number of Applicators: 3				
Truck Number: #3	ATV/UTV number: Kabota		Billable Hours 7:00a - 5:00p = 10hrs				

Escort 2.50Z	+ 12.5 = 150Z	hand boom	boom spray
Liberate 320Z	+ 640Z = 960Z	loads	loads
		1/2 tank	1/2 tank (50gal)
		Escort 3.50Z	Liberate 160Z
			Full load
		Escort 6.25Z	Liberate 320Z

Qualified Supervisor: <i>[Signature]</i>	Date: 6-13-19
Applicator: <i>[Signature]</i>	Date: 13 June 19

Osborn Industries LLC

#5A.1

0452687520

#1381

Date: 7-2-19

1 of 1

Job Name: 20 Mile

Address:

Equipment working properly	X	Location Contact info: <u>Miranda Kawcat</u>
Hoses serviceable	X	
Pumps serviceable	X	
Filters serviceable	X	
Tanks secured properly	X	
Proper PPE available	X	
Notes:		

Temperature	Wind	Direction	Conditions	Spraying Time
55°	-	-	clear	730

Targeted Species white top, thick-necked, canola, knapsack

Type of Site Treated:	Rangeland	<u>Industrial</u>	Ag Crop	ROW	Turf
Chemical Name	EPA Reg #	Applied Amount / Acre	Total Product Applied		
Escort	432-1549	162	302		
torben	62719-6	1602	48		
Cornbelt Premier 90	NA	32/100g	x 39		

Method of Application	ATV	UTV	<u>Truck</u>	Tractor	Backpack	Horse	Other
Gallons per acre: 40	Dilution used: water		Number of Applicators: 2				
Truck Number: 6 6	ATV/UTV number: -		Billable Hours 700 - 1800 = 11 hrs x 2				

loads = 22 hrs

111

70 x 20 = 1400

17.5 x 1156 = 202.3

160 x 1 = 160

10 x 1.44 = 14.4

1632

Qualified Supervisor:

Date

7-2-19

Applicator:

Date

7/2/19

Osborn Industries LLC

#1438

Date: 9/17/19	1 of 1
Job Name: 20 mile	
Address:	

Equipment working properly	✓	Location Contact info: Miranda Karscak
Hoses serviceable	✓	
Pumps serviceable	✓	
Filters serviceable	✓	
Tanks secured properly	✓	
Proper PPE available	✓	
Notes:		

Temperature 50-80	Wind >10	Direction NA	Conditions Clear	Spraying Time 930-1000
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Targeted Species	Bare ground
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Type of Site Treated:	Rangeland	Industrial	Ag Crop	ROW	Turf
Chemical Name	EPA Reg #	Applied Amount / Acre	Total Product Applied		
esplanade	432-1516	7oz	3.5oz		
Borcenexer	55467-9	64/100g	32oz		
Piper	59639-193	10oz	5oz		
red Dye	NA	7oz	3.5oz		
Grog oil	NA	64/100g	32oz		

Method of Application	ATV	UTV	Truck	Tractor	Backpack	Horse	Other
Gallons per acre:	100	Dilution used:	Water	Number of Applicators:	2		
Truck Number:	5	ATV/UTV number:	—	Billable Hours	9 - 130 = 4.5		

loads - 1/2 load spray

Qualified Supervisor:	Date
Applicator: Sue Andrews	Date 9/17/19

Osborn Industries LLC

#1138

Date: 17 Sept 19	1 of 1
Job Name: 20 Mile	
Address:	

Equipment working properly	✓	Location Contact info:
Hoses serviceable	✓	
Pumps serviceable	✓	
Filters serviceable	✓	
Tanks secured properly	✓	
Proper PPE available	✓	
Notes:		

Temperature 60°	Wind 510 mph	Direction	Conditions cloudy	Spraying Time
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Targeted Species	Bull thistle - Canada thistle - musk thistle - hounds tongue
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Type of Site Treated:	Rangeland	Industrial	Ag Crop	ROW	Turf
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Chemical Name	EPA Reg #	Applied Amount / Acre	Total Product Applied
Tordon	62719-6	64oz/A	128oz
Soy Stk	NA	32ozp/100G	24oz

Method of Application	ATV	UTV	Truck	Tractor	Backpack	Horse	Other
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Gallons per acre: 40 G/A	Dilution used: water	Number of Applicators: 2
Truck Number: #3	ATV/UTV number: #4 - GRN Tenk	Billable Hours 9.00 - 1.30 = 4.5 hr

UTV	hand spray	9 hr
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Tordon 64oz -	
SunWet 12oz -	loads
	11

Qualified Supervisor:

Date 9-17-19

Applicator:

Date 17 Sept 19

Commercial applicators are licensed by the Colorado Department of Agriculture

Osborn Industries LLC

#1438

Date: 9-18-19 | 1 of 1
 Job Name: 20 mile
 Address:

Equipment working properly	✓	Location Contact info: Mmunda Kuuwut
Hoses serviceable	✓	
Pumps serviceable	✓	
Filters serviceable	✓	
Tanks secured properly	✓	
Proper PPE available	✓	
Notes:		

Temperature 50-80	Wind >10	Direction NA	Conditions Clear	Spraying Time 800-445
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Targeted Species: Bareground

Type of Site Treated:	Rangeland	Industrial	Ag Crop	ROW	Turf
Chemical Name	EPA Reg #	Applied Amount / Acre	Total Product Applied		
Bucceneer	55467-9	64/100	160oz		
esplanade	432-1516	7oz	17.5oz		
Piper	59639-193	10oz	25oz		
Red Dye	NA	7oz	17.5oz		
Grop 0.1	NA	64/100	160oz		

Method of Application	ATV	UTV	Truck	Tractor	Backpack	Horse	Other
Gallons per acre: 100	Dilution used: water		Number of Applicators: 2				
Truck Number: 3	ATV/UTV number:		Billable Hours 730-500 = 9.5 hrs				

loads - 11 = 19 hrs

↓
+ .5

Qualified Supervisor:

Date 9-18-19

Applicator:

Srea Andrews

Date 9-18-19

Osborn Industries LLC

#1438

Date:	9/19/19	1 of
Job Name:	70 mile	
Address:		

Equipment working properly	<input checked="" type="checkbox"/>	Location Contact info: Miranda Bra Kawck
Hoses serviceable	<input checked="" type="checkbox"/>	
Pumps serviceable	<input checked="" type="checkbox"/>	
Filters serviceable	<input checked="" type="checkbox"/>	
Tanks secured properly	<input checked="" type="checkbox"/>	
Proper PPE available	<input checked="" type="checkbox"/>	Notes:

Temperature	Wind	Direction	Conditions	Spraying Time
50-80	>10	NA	Clear	830-

Targeted Species	mullen, Hound tongue, thistle (canada, musk, Bull)
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Type of Site Treated:	Rangeland	Industrial	Ag Crop	ROW	Turf
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Chemical Name	EPA Reg #	Applied Amount / Acre	Total Product Applied
Tordon	62719-6	32	480
Brewer 90	NA	32 / 100g	78

Method of Application	ATV	<input checked="" type="checkbox"/> UTV	Truck	Tractor	Backpack	Horse	Other
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Gallons per acre:	16	Dilution used:	Water	Number of Applicators:	2
Truck Number:	5	ATV/UTV number:	Ranger 1/6th	Billable Hours	830 - 5pm = 8.5 hrs

40g Boom Spray loads - 1111 = 174

Tordon - 80oz	+ 16 oz feb
Brewer - 13oz	

Qualified Supervisor:		Date	9-14-19
Applicator:		Date	9-19-19

Osborn Industries LLC

#1438

Date: 9-23-19	1 of 2
Job Name: 20 mile	
Address:	

Equipment working properly	✓	Location Contact info: Miranda Kawcak
Hoses serviceable	✓	
Pumps serviceable	✓	Notes:
Filters serviceable	✓	
Tanks secured properly	✓	
Proper PPE available	✓	

Temperature 50° - 70	Wind -	Direction -	Conditions Clear	Spraying Time 8:30 - 10 am
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Targeted Species BG

Type of Site Treated:	Rangeland	Industrial	Ag Crop	ROW	Turf
Chemical Name	EPA Reg #	Applied Amount / Acre		Total Product Applied	
Esplanade	432-1561	702		1.402	
Piper	591634-193	1002		2.002	
Buccaneer	55467-9	6462		12.8	
Crop oil	-	6462/100 gal		12.8	

Method of Application	ATV	UTV	Truck	Tractor	Backpack	Horse	Other
Gallons per acre: 100	Dilution used: water		Number of Applicators: 2				
Truck Number: 5	ATV/UTV number: -		Billable Hours: 8:30 - 10:00 am				

20 gal sprayed

8:30 - 12:30 = 4.5 x 2 = 9

Qualified Supervisor:

Date 9-23-19

Applicator:

Date 9-23-19

Osborn Industries LLC

#1438

Date: 9-23-19	2 of 2
Job Name: 20 mile	
Address:	

Equipment working properly	✓	Location Contact info: Miranda Kawcak
Hoses serviceable	✓	
Pumps serviceable	✓	
Filters serviceable	✓	
Tanks secured properly	✓	
Proper PPE available	✓	
Notes:		

Temperature 50-75	Wind -	Direction -	Conditions Clear	Spraying Time Dawn-12pm
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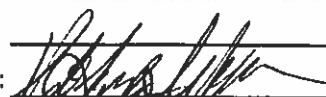

Targeted Species thistle-canada, musk, bull, mallard,

Type of Site Treated:	Rangeland	Industrial	Ag Crop	ROW	Turf
Chemical Name	EPA Reg #	Applied Amount / Acre	Total Product Applied		
Tordon	62719-6	64oz	320		
Breuer 90	-	32oz/100gal	26		

Method of Application	ATV	UTV	Truck	Tractor	Backpack	Horse	Other
Gallons per acre: 16	Dilution used: water		Number of Applicators: 2				
Truck Number: 5	ATV/UTV number: UTV #1		Billable Hours 800 - 400				

40 gal tank
Tordon: 160 oz
Breuer: 13oz
loads: 11

see 1st pg

Qualified Supervisor: 	Date: 9-23-19
Applicator: 	Date: 9-23-19

Osborn Industries LLC

#1438

Date: 9/25/19	1 of 1
Job Name: 20 mile	
Address:	

Equipment working properly	✓	Location Contact info: Miranda
Hoses serviceable	✓	
Pumps serviceable	✓	
Filters serviceable	✓	
Tanks secured properly	✓	
Proper PPE available	✓	Notes:

Temperature 40-75	Wind 710	Direction NA	Conditions Clear	Spraying Time 900-320
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Targeted Species: mullen, Hounds tongue, thistle

Type of Site Treated:	Rangeland	Industrial	Ag Crop	ROW	Turf
Chemical Name	EPA Reg #	Applied Amount / Acre	Total Product Applied		
Tordon	62719-6	64oz	800oz		
Brewer 90	NA	32/bag	65oz		

Method of Application	ATV	UTV	Truck	Tractor	Backpack	Horse	Other
Gallons per acre: 40	Dilution used: Water		Number of Applicators: 2				
Truck Number: 5	ATV/UTV number: Ranger 1/6		Billable Hours: 830-330				

Boom spray loads - 14

Tordon - 160oz

Brewer 90 - 13oz

Qualified Supervisor: [Signature]	Date: 9/26/19
Applicator: [Signature]	Date: 9/25/19
	9/25/19

Commercial applicators are licensed by the Colorado Department of Agriculture

Osborn Industries LLC

#1438

Date: 10-1-19	1 of 1
Job Name: 20mile	
Address:	

Equipment working properly	✓	Location Contact info: Miranda Kewcak
Hoses serviceable	✓	
Pumps serviceable	✓	
Filters serviceable	✓	
Tanks secured properly	✓	
Proper PPE available	✓	
Notes: Substation		

Temperature	Wind	Direction	Conditions	Spraying Time
60-65°	40 mph	SW	Clear	

Targeted Species	BC

Type of Site Treated:	Rangeland	Industrial	Ag Crop	ROW	Turf
Chemical Name	EPA Reg #	Applied Amount / Acre	Total Product Applied		
Esplanade	432-1516	7oz	8.4		
Piper	59639-193	10oz	12oz		
Bravos 90	-	64oz/100gal	= 77		

Method of Application	ATV	UTV	Truck	Tractor	Backpack	Horse	Other
Gallons per acre: 100	Dilution used: water		Number of Applicators: 2				
Truck Number: 5	ATV/UTV number: -		Billable Hours 9:30 - 3:30 = 6 hrs = 12 hrs				

40gal + 80gal = 120gal

Qualified Supervisor: *[Signature]*
 Applicator: *[Signature]*

Date 10-1-19

Date 10-1-19