District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form C-101
August 1, 2011

Permit 345287

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address	2. OGRID Number
Earthstone Operating, LLC 1400 Woodloch Forest; Ste 300 The Woodlands, TX 77380	331165
	3. API Number 30-025-51728

4. Property Code	5. Property Name	6. Well No.
334547	DOVETAIL 18 7 STATE COM	111H

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
M	18	21S	35E	4	506	S	523	W	Lea

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
D	7	21S	35E	1	50	N	990	W	Lea

9. Pool Information

WILSON;BONE SPRING, NORTH	97704

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
New Well	OIL		State	3639
16. Multiple	**17. Proposed Depth**	**18. Formation**	**19. Contractor**	**20. Spud Date**
N	19508	Bone Spring		11/1/2024
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☒ **We will be using a closed-loop system in lieu of lined pits**

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	14.75	10.75	45.5	1750	600	0
Int1	9.875	8.625	32	5717	1000	0
Prod	7.875	5.5	20	19508	1200	3647

Casing/Cement Program: Additional Comments

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	5000	5000	CAMERON

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. **I further certify I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☒, if applicable.** Signature:		**OIL CONSERVATION DIVISION**		
Printed Name:	Electronically filed by Charlotte Stilwell	Approved By:	Paul F Kautz	
Title:	Production Analyst Supervisor	Title:	Geologist	
Email Address:	charlotte@earthstoneenergy.com	Approved Date:	7/19/2023	Expiration Date: 7/19/2025
Date:	7/14/2023 Phone: 281-771-3065	Conditions of Approval Attached		

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Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-025-51728	97704	WILSON; BONE SPRING, NORTH

[4] Property Code	[5] Property Name	[6] Well Number
334547	DOVETAIL 18 7 STATE COM	111H

[7] OGRID No.	[8] Operator Name	[9] Elevation
331165	EARTHSTONE OPERATING, LLC	3638.7

[10] Surface Location

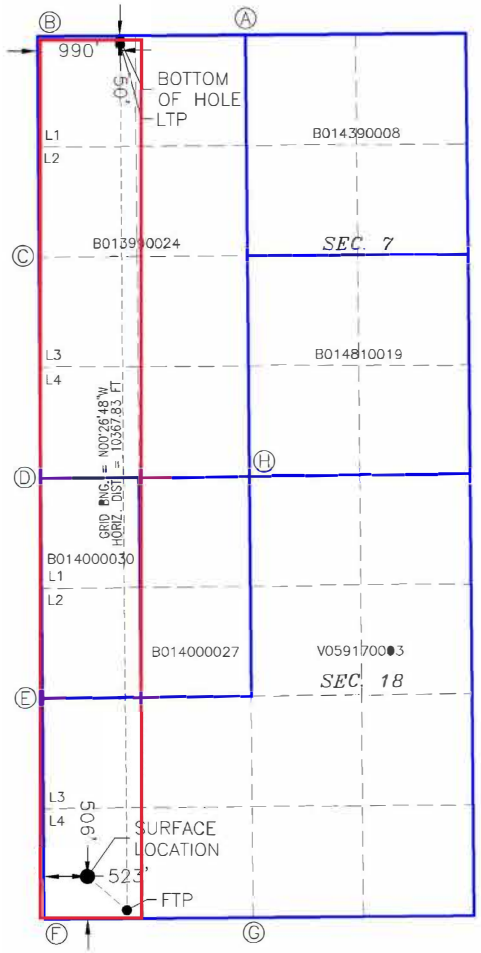
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
4	18	21 S	35 E		506	SOUTH	523	WEST	LEA

[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	7	21 S	35 E		50	NORTH	990	WEST	LEA

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
284.999			

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



DOVETAIL 18 7 STATE COM 111H
EL. = 3638.7

GEODETIC COORDINATES NAD 27 NMSP EAST SURFACE LOCATION	GEODETIC COORDINATES NAD 83 NMSP EAST SURFACE LOCATION
N.= 537030.67	N.= 537092.25
E.= 783910.71	E.= 825093.62
LAT. = 32.4730424°N	LAT. = 32.4731666°N
LONG. = 103.4127359°W	LONG. = 103.4132160°W
FIRST TAKE POINT 100' FSL, 990' FWL NAD 27 NMSP EAST	FIRST TAKE POINT 100' FSL, 990' FWL NAD 83 NMSP EAST
N.= 536628.23	N.= 536689.80
E.= 784380.69	E.= 825563.62
LAT. = 32.4719251°N	LAT. = 32.4720494°N
LONG. = 103.4112234°W	LONG. = 103.4117034°W
LAST TAKE POINT 100' FNL, 990' FWL NAD 27 NMSP EAST	LAST TAKE POINT 100' FNL, 990' FWL NAD 83 NMSP EAST
N.= 546993.74	N.= 547055.59
E.= 784300.06	E.= 825482.78
LAT. = 32.5004169°N	LAT. = 32.5005410°N
LONG. = 103.4111943°W	LONG. = 103.4116751°W
BOTTOM OF HOLE NAD 27 NMSP EAST	BOTTOM OF HOLE NAD 83 NMSP EAST
N.= 547043.73	N.= 547105.58
E.= 784299.68	E.= 825482.39
LAT. = 32.5005543°N	LAT. = 32.5006784°N
LONG. = 103.4111941°W	LONG. = 103.4116749°W

CORNER COORDINATES TABLE
NAD 27 NMSP EAST

A	N.= 547104.23	E.= 785797.79
B	N.= 547086.77	E.= 783309.53
C	N.= 544445.11	E.= 783330.16
D	N.= 541800.32	E.= 783350.69
E	N.= 539160.22	E.= 783371.21
F	N.= 536520.12	E.= 783391.72
G	N.= 536540.67	E.= 785892.44
H	N.= 541822.28	E.= 785848.39

CORNER COORDINATES TABLE
NAD 83 NMSP EAST

A	N.= 547166.09	E.= 826980.56
B	N.= 547148.62	E.= 824492.22
C	N.= 544506.89	E.= 824512.91
D	N.= 541862.03	E.= 824533.48
E	N.= 539221.86	E.= 824554.05
F	N.= 536581.68	E.= 824574.62
G	N.= 536602.24	E.= 827075.41
H	N.= 541883.99	E.= 827031.26

[17] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Jennifer Elrod — 07/05/2023
Signature — Date

JENNIFER ELROD
Printed Name

JELROD@EARTHSTONEENERGY.COM
E-mail Address

[18] SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

JUNE 28, 2023
Date of Survey

Signature and Seal of Professional Surveyor:

EDMUND F. JARAMILLO — NEW MEXICO — 12797 — REGISTERED PROFESSIONAL SURVEYOR

Certificate Number: EDMUND F. JARAMILLO, PLS 12797
SURVEY NO. 9764A

Intent [X] As Drilled [ ]

API #

Operator Name:	Property Name:	Well Number
EARTHSTONE OPERATING, LLC	DOVETAIL 18 7 STATE COM	111H

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
	18	21S	35E	4	506	SOUTH	523	WEST	LEA

Latitude	Longitude	NAD
32.4731666	103.4132160	83

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
	18	21S	35E	4	100	SOUTH	990	WEST	LEA

Latitude	Longitude	NAD
32.4720494	103.4117034	83

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
	7	21S	35E	1	100	NORTH	990	WEST	LEA

Latitude	Longitude	NAD
32.5005410	103.4116751	83

Is this well the defining well for the Horizontal Spacing Unit? [YES]

Is this well an infill well? [NO]

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #

Operator Name:	Property Name:	Well Number

KZ 06/29/2018

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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form APD Conditions

Permit 345287

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address:	API Number:
Earthstone Operating, LLC [331165] 1400 Woodloch Forest; Ste 300 The Woodlands, TX 77380	30-025-51728
	Well: DOVETAIL 18 7 STATE COM #111H

OCD Reviewer	Condition
pkautz	Notify OCD 24 hours prior to casing & cement
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104
pkautz	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
pkautz	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system
pkautz	Cement is required to circulate on both surface and intermediate1 strings of casing
pkautz	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud

Planning Report

Database:	LEAM Multi_User Db	**Local Co-ordinate Reference:**	Well Dovetail State Com 111H
Company:	Earthstone Operating, LLC	**TVD Reference:**	GE 3638.7' + KB 27.5' @ 3666.20usft
Project:	Lea County, NM (NAD 27)	**MD Reference:**	GE 3638.7' + KB 27.5' @ 3666.20usft
Site:	Dovetail 18 7 State Com	**North Reference:**	Grid
Well:	Dovetail State Com 111H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Project Lea County, NM (NAD 27)

Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site Dovetail 18 7 State Com

Site Position:		**Northing:**	536,922.83 usft	**Latitude:**	32° 28' 21.73 N
From:	Map	**Easting:**	785,678.26 usft	**Longitude:**	103° 24' 25.23 W
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.50 °

Well Dovetail State Com 111H

Well Position	**+N/-S**	107.84 usft	**Northing:**	537,030.67 usft	**Latitude:**	32° 28' 22.95 N
	+E/-W	-1,767.55 usft	**Easting:**	783,910.71 usft	**Longitude:**	103° 24' 45.85 W
Position Uncertainty		0.00 usft	**Wellhead Elevation:**		**Ground Level:**	3,638.70 usft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM_FILE	8/10/2023	6.28	60.17	47,630.30000000

Design Plan #1

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	359.55

Plan Survey Tool Program **Date** 7/10/2023

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	19,508.38	Plan #1 (OH)	OWSG_Rev2_MWD+HRGM	
				OWSG MWD + HRGM	

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,900.91	6.02	136.58	2,900.36	-11.47	10.85	2.00	2.00	0.00	136.58	
8,671.59	6.02	136.58	8,639.23	-450.91	426.72	0.00	0.00	0.00	0.00	
9,618.38	90.28	359.55	9,254.53	123.48	466.64	10.00	8.90	-14.47	-136.85	
19,508.38	90.28	359.55	9,206.20	10,013.06	388.97	0.00	0.00	0.00	0.00	PBHL (Dovetail 111H)

Planning Report

Database:	LEAM Multi_User Db	**Local Co-ordinate Reference:**	Well Dovetail State Com 111H
Company:	Earthstone Operating, LLC	**TVD Reference:**	GE 3638.7' + KB 27.5' @ 3666.20usft
Project:	Lea County, NM (NAD 27)	**MD Reference:**	GE 3638.7' + KB 27.5' @ 3666.20usft
Site:	Dovetail 18 7 State Com	**North Reference:**	Grid
Well:	Dovetail State Com 111H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SHL (Dovetail 111H)									
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,676.20	0.00	0.00	1,676.20	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,106.20	0.00	0.00	2,106.20	0.00	0.00	0.00	0.00	0.00	0.00
Salado									
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	2.00	136.58	2,699.98	-1.27	1.20	-1.28	2.00	2.00	0.00
2,800.00	4.00	136.58	2,799.84	-5.07	4.80	-5.11	2.00	2.00	0.00
2,900.91	6.02	136.58	2,900.36	-11.47	10.85	-11.55	2.00	2.00	0.00
3,000.00	6.02	136.58	2,998.90	-19.01	17.99	-19.15	0.00	0.00	0.00
3,100.00	6.02	136.58	3,098.35	-26.63	25.20	-26.83	0.00	0.00	0.00
3,200.00	6.02	136.58	3,197.80	-34.24	32.41	-34.50	0.00	0.00	0.00
3,300.00	6.02	136.58	3,297.25	-41.86	39.61	-42.17	0.00	0.00	0.00
3,400.00	6.02	136.58	3,396.70	-49.47	46.82	-49.84	0.00	0.00	0.00
3,500.00	6.02	136.58	3,496.15	-57.09	54.03	-57.51	0.00	0.00	0.00
3,600.00	6.02	136.58	3,595.59	-64.70	61.23	-65.18	0.00	0.00	0.00
3,630.78	6.02	136.58	3,626.20	-67.05	63.45	-67.54	0.00	0.00	0.00
Yates									
3,700.00	6.02	136.58	3,695.04	-72.32	68.44	-72.85	0.00	0.00	0.00
3,800.00	6.02	136.58	3,794.49	-79.93	75.65	-80.53	0.00	0.00	0.00
3,900.00	6.02	136.58	3,893.94	-87.55	82.85	-88.20	0.00	0.00	0.00
4,000.00	6.02	136.58	3,993.39	-95.16	90.06	-95.87	0.00	0.00	0.00
4,100.00	6.02	136.58	4,092.84	-102.78	97.27	-103.54	0.00	0.00	0.00
4,153.66	6.02	136.58	4,146.20	-106.87	101.13	-107.66	0.00	0.00	0.00
Capitan Reef									
4,200.00	6.02	136.58	4,192.29	-110.39	104.47	-111.21	0.00	0.00	0.00
4,300.00	6.02	136.58	4,291.74	-118.01	111.68	-118.88	0.00	0.00	0.00

Planning Report

Database:	LEAM Multi_User Db	**Local Co-ordinate Reference:**	Well Dovetail State Com 111H
Company:	Earthstone Operating, LLC	**TVD Reference:**	GE 3638.7' + KB 27.5' @ 3666.20usft
Project:	Lea County, NM (NAD 27)	**MD Reference:**	GE 3638.7' + KB 27.5' @ 3666.20usft
Site:	Dovetail 18 7 State Com	**North Reference:**	Grid
Well:	Dovetail State Com 111H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,400.00	6.02	136.58	4,391.19	-125.62	118.89	-126.55	0.00	0.00	0.00
4,500.00	6.02	136.58	4,490.63	-133.24	126.09	-134.23	0.00	0.00	0.00
4,600.00	6.02	136.58	4,590.08	-140.86	133.30	-141.90	0.00	0.00	0.00
4,700.00	6.02	136.58	4,689.53	-148.47	140.50	-149.57	0.00	0.00	0.00
4,800.00	6.02	136.58	4,788.98	-156.09	147.71	-157.24	0.00	0.00	0.00
4,900.00	6.02	136.58	4,888.43	-163.70	154.92	-164.91	0.00	0.00	0.00
5,000.00	6.02	136.58	4,987.88	-171.32	162.12	-172.58	0.00	0.00	0.00
5,100.00	6.02	136.58	5,087.33	-178.93	169.33	-180.25	0.00	0.00	0.00
5,200.00	6.02	136.58	5,186.78	-186.55	176.54	-187.93	0.00	0.00	0.00
5,300.00	6.02	136.58	5,286.22	-194.16	183.74	-195.60	0.00	0.00	0.00
5,400.00	6.02	136.58	5,385.67	-201.78	190.95	-203.27	0.00	0.00	0.00
5,500.00	6.02	136.58	5,485.12	-209.39	198.16	-210.94	0.00	0.00	0.00
5,600.00	6.02	136.58	5,584.57	-217.01	205.36	-218.61	0.00	0.00	0.00
5,631.80	6.02	136.58	5,616.20	-219.43	207.66	-221.05	0.00	0.00	0.00
Cherry Canyon									
5,700.00	6.02	136.58	5,684.02	-224.62	212.57	-226.28	0.00	0.00	0.00
5,800.00	6.02	136.58	5,783.47	-232.24	219.78	-233.96	0.00	0.00	0.00
5,900.00	6.02	136.58	5,882.92	-239.85	226.98	-241.63	0.00	0.00	0.00
6,000.00	6.02	136.58	5,982.37	-247.47	234.19	-249.30	0.00	0.00	0.00
6,100.00	6.02	136.58	6,081.82	-255.08	241.40	-256.97	0.00	0.00	0.00
6,200.00	6.02	136.58	6,181.26	-262.70	248.60	-264.64	0.00	0.00	0.00
6,300.00	6.02	136.58	6,280.71	-270.31	255.81	-272.31	0.00	0.00	0.00
6,400.00	6.02	136.58	6,380.16	-277.93	263.02	-279.98	0.00	0.00	0.00
6,500.00	6.02	136.58	6,479.61	-285.54	270.22	-287.66	0.00	0.00	0.00
6,600.00	6.02	136.58	6,579.06	-293.16	277.43	-295.33	0.00	0.00	0.00
6,662.48	6.02	136.58	6,641.20	-297.92	281.93	-300.12	0.00	0.00	0.00
Brushy Canyon									
6,700.00	6.02	136.58	6,678.51	-300.77	284.64	-303.00	0.00	0.00	0.00
6,800.00	6.02	136.58	6,777.96	-308.39	291.84	-310.67	0.00	0.00	0.00
6,900.00	6.02	136.58	6,877.41	-316.00	299.05	-318.34	0.00	0.00	0.00
7,000.00	6.02	136.58	6,976.86	-323.62	306.26	-326.01	0.00	0.00	0.00
7,100.00	6.02	136.58	7,076.30	-331.23	313.46	-333.68	0.00	0.00	0.00
7,200.00	6.02	136.58	7,175.75	-338.85	320.67	-341.36	0.00	0.00	0.00
7,300.00	6.02	136.58	7,275.20	-346.46	327.88	-349.03	0.00	0.00	0.00
7,400.00	6.02	136.58	7,374.65	-354.08	335.08	-356.70	0.00	0.00	0.00
7,500.00	6.02	136.58	7,474.10	-361.69	342.29	-364.37	0.00	0.00	0.00
7,600.00	6.02	136.58	7,573.55	-369.31	349.49	-372.04	0.00	0.00	0.00
7,700.00	6.02	136.58	7,673.00	-376.92	356.70	-379.71	0.00	0.00	0.00
7,800.00	6.02	136.58	7,772.45	-384.54	363.91	-387.38	0.00	0.00	0.00
7,900.00	6.02	136.58	7,871.90	-392.15	371.11	-395.06	0.00	0.00	0.00
8,000.00	6.02	136.58	7,971.34	-399.77	378.32	-402.73	0.00	0.00	0.00
8,070.24	6.02	136.58	8,041.20	-405.12	383.38	-408.12	0.00	0.00	0.00
Top BSPG Lime									
8,100.00	6.02	136.58	8,070.79	-407.38	385.53	-410.40	0.00	0.00	0.00
8,200.00	6.02	136.58	8,170.24	-415.00	392.73	-418.07	0.00	0.00	0.00
8,300.00	6.02	136.58	8,269.69	-422.61	399.94	-425.74	0.00	0.00	0.00
8,400.00	6.02	136.58	8,369.14	-430.23	407.15	-433.41	0.00	0.00	0.00
8,500.00	6.02	136.58	8,468.59	-437.84	414.35	-441.08	0.00	0.00	0.00
8,600.00	6.02	136.58	8,568.04	-445.46	421.56	-448.76	0.00	0.00	0.00
8,671.59	6.02	136.58	8,639.23	-450.91	426.72	-454.25	0.00	0.00	0.00
8,700.00	4.40	110.33	8,667.53	-452.37	428.76	-455.72	10.00	-5.71	-92.38
8,750.00	5.36	49.57	8,717.38	-451.52	432.34	-454.90	10.00	1.93	-121.52
8,800.00	9.38	25.35	8,766.96	-446.32	435.87	-449.73	10.00	8.05	-48.43

Planning Report

Database:	LEAM Multi_User Db	**Local Co-ordinate Reference:**	Well Dovetail State Com 111H
Company:	Earthstone Operating, LLC	**TVD Reference:**	GE 3638.7' + KB 27.5' @ 3666.20usft
Project:	Lea County, NM (NAD 27)	**MD Reference:**	GE 3638.7' + KB 27.5' @ 3666.20usft
Site:	Dovetail 18 7 State Com	**North Reference:**	Grid
Well:	Dovetail State Com 111H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,850.00	14.05	16.27	8,815.91	-436.80	439.32	-440.24	10.00	9.32	-18.17
8,900.00	18.88	11.70	8,863.85	-423.05	442.66	-426.51	10.00	9.67	-9.13
8,950.00	23.78	8.96	8,910.41	-405.16	445.87	-408.65	10.00	9.80	-5.49
9,000.00	28.71	7.11	8,955.24	-383.27	448.93	-386.78	10.00	9.87	-3.70
9,050.00	33.67	5.77	8,998.00	-357.54	451.81	-361.08	10.00	9.90	-2.69
9,100.00	38.63	4.73	9,038.37	-328.18	454.49	-331.74	10.00	9.93	-2.07
9,150.00	43.60	3.90	9,076.03	-295.41	456.95	-298.99	10.00	9.94	-1.66
9,198.60	48.43	3.23	9,109.77	-260.51	459.12	-264.11	10.00	9.95	-1.39
FTP (Dovetail 111H)									
9,200.00	48.57	3.21	9,110.69	-259.47	459.18	-263.07	10.00	9.95	-1.28
9,250.00	53.55	2.61	9,142.11	-220.64	461.14	-224.26	10.00	9.96	-1.19
9,300.00	58.53	2.09	9,170.03	-179.22	462.84	-182.85	10.00	9.96	-1.04
9,350.00	63.52	1.62	9,194.24	-135.51	464.25	-139.15	10.00	9.97	-0.94
9,400.00	68.50	1.19	9,214.57	-89.86	465.37	-93.51	10.00	9.97	-0.86
9,450.00	73.49	0.79	9,230.84	-42.61	466.19	-46.27	10.00	9.97	-0.80
9,451.26	73.61	0.78	9,231.20	-41.40	466.20	-45.06	10.00	9.97	-0.78
1st BSPG Ss									
9,500.00	78.47	0.41	9,242.95	5.89	466.69	2.22	10.00	9.97	-0.76
9,550.00	83.46	0.04	9,250.80	55.25	466.89	51.58	10.00	9.97	-0.74
9,600.00	88.45	359.68	9,254.33	105.11	466.77	101.44	10.00	9.97	-0.72
9,618.38	90.28	359.55	9,254.53	123.48	466.64	119.81	10.00	9.97	-0.72
9,700.00	90.28	359.55	9,254.13	205.10	466.00	201.44	0.00	0.00	0.00
9,800.00	90.28	359.55	9,253.64	305.10	465.22	301.44	0.00	0.00	0.00
9,900.00	90.28	359.55	9,253.16	405.09	464.43	401.43	0.00	0.00	0.00
10,000.00	90.28	359.55	9,252.67	505.09	463.65	501.43	0.00	0.00	0.00
10,100.00	90.28	359.55	9,252.18	605.09	462.86	601.43	0.00	0.00	0.00
10,200.00	90.28	359.55	9,251.69	705.08	462.08	701.43	0.00	0.00	0.00
10,300.00	90.28	359.55	9,251.20	805.08	461.29	801.43	0.00	0.00	0.00
10,400.00	90.28	359.55	9,250.71	905.07	460.51	901.43	0.00	0.00	0.00
10,500.00	90.28	359.55	9,250.22	1,005.07	459.72	1,001.43	0.00	0.00	0.00
10,600.00	90.28	359.55	9,249.73	1,105.06	458.93	1,101.43	0.00	0.00	0.00
10,700.00	90.28	359.55	9,249.25	1,205.06	458.15	1,201.43	0.00	0.00	0.00
10,800.00	90.28	359.55	9,248.76	1,305.06	457.36	1,301.42	0.00	0.00	0.00
10,900.00	90.28	359.55	9,248.27	1,405.05	456.58	1,401.42	0.00	0.00	0.00
11,000.00	90.28	359.55	9,247.78	1,505.05	455.79	1,501.42	0.00	0.00	0.00
11,100.00	90.28	359.55	9,247.29	1,605.04	455.01	1,601.42	0.00	0.00	0.00
11,200.00	90.28	359.55	9,246.80	1,705.04	454.22	1,701.42	0.00	0.00	0.00
11,300.00	90.28	359.55	9,246.31	1,805.03	453.44	1,801.42	0.00	0.00	0.00
11,400.00	90.28	359.55	9,245.83	1,905.03	452.65	1,901.42	0.00	0.00	0.00
11,500.00	90.28	359.55	9,245.34	2,005.03	451.87	2,001.42	0.00	0.00	0.00
11,600.00	90.28	359.55	9,244.85	2,105.02	451.08	2,101.41	0.00	0.00	0.00
11,700.00	90.28	359.55	9,244.36	2,205.02	450.30	2,201.41	0.00	0.00	0.00
11,800.00	90.28	359.55	9,243.87	2,305.01	449.51	2,301.41	0.00	0.00	0.00
11,900.00	90.28	359.55	9,243.38	2,405.01	448.72	2,401.41	0.00	0.00	0.00
12,000.00	90.28	359.55	9,242.89	2,505.00	447.94	2,501.41	0.00	0.00	0.00
12,100.00	90.28	359.55	9,242.40	2,605.00	447.15	2,601.41	0.00	0.00	0.00
12,200.00	90.28	359.55	9,241.92	2,705.00	446.37	2,701.41	0.00	0.00	0.00
12,300.00	90.28	359.55	9,241.43	2,804.99	445.58	2,801.41	0.00	0.00	0.00
12,400.00	90.28	359.55	9,240.94	2,904.99	444.80	2,901.40	0.00	0.00	0.00
12,500.00	90.28	359.55	9,240.45	3,004.98	444.01	3,001.40	0.00	0.00	0.00
12,600.00	90.28	359.55	9,239.96	3,104.98	443.23	3,101.40	0.00	0.00	0.00
12,700.00	90.28	359.55	9,239.47	3,204.98	442.44	3,201.40	0.00	0.00	0.00
12,800.00	90.28	359.55	9,238.98	3,304.97	441.66	3,301.40	0.00	0.00	0.00
12,900.00	90.28	359.55	9,238.49	3,404.97	440.87	3,401.40	0.00	0.00	0.00

Planning Report

Database:	LEAM Multi_User Db	**Local Co-ordinate Reference:**	Well Dovetail State Com 111H
Company:	Earthstone Operating, LLC	**TVD Reference:**	GE 3638.7' + KB 27.5' @ 3666.20usft
Project:	Lea County, NM (NAD 27)	**MD Reference:**	GE 3638.7' + KB 27.5' @ 3666.20usft
Site:	Dovetail 18 7 State Com	**North Reference:**	Grid
Well:	Dovetail State Com 111H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,000.00	90.28	359.55	9,238.01	3,504.96	440.09	3,501.40	0.00	0.00	0.00
13,100.00	90.28	359.55	9,237.52	3,604.96	439.30	3,601.40	0.00	0.00	0.00
13,200.00	90.28	359.55	9,237.03	3,704.95	438.51	3,701.40	0.00	0.00	0.00
13,300.00	90.28	359.55	9,236.54	3,804.95	437.73	3,801.39	0.00	0.00	0.00
13,400.00	90.28	359.55	9,236.05	3,904.95	436.94	3,901.39	0.00	0.00	0.00
13,500.00	90.28	359.55	9,235.56	4,004.94	436.16	4,001.39	0.00	0.00	0.00
13,600.00	90.28	359.55	9,235.07	4,104.94	435.37	4,101.39	0.00	0.00	0.00
13,700.00	90.28	359.55	9,234.59	4,204.93	434.59	4,201.39	0.00	0.00	0.00
13,800.00	90.28	359.55	9,234.10	4,304.93	433.80	4,301.39	0.00	0.00	0.00
13,900.00	90.28	359.55	9,233.61	4,404.92	433.02	4,401.39	0.00	0.00	0.00
14,000.00	90.28	359.55	9,233.12	4,504.92	432.23	4,501.39	0.00	0.00	0.00
14,100.00	90.28	359.55	9,232.63	4,604.92	431.45	4,601.38	0.00	0.00	0.00
14,200.00	90.28	359.55	9,232.14	4,704.91	430.66	4,701.38	0.00	0.00	0.00
14,300.00	90.28	359.55	9,231.65	4,804.91	429.88	4,801.38	0.00	0.00	0.00
14,400.00	90.28	359.55	9,231.16	4,904.90	429.09	4,901.38	0.00	0.00	0.00
14,500.00	90.28	359.55	9,230.68	5,004.90	428.30	5,001.38	0.00	0.00	0.00
14,600.00	90.28	359.55	9,230.19	5,104.89	427.52	5,101.38	0.00	0.00	0.00
14,700.00	90.28	359.55	9,229.70	5,204.89	426.73	5,201.38	0.00	0.00	0.00
14,800.00	90.28	359.55	9,229.21	5,304.89	425.95	5,301.38	0.00	0.00	0.00
14,900.00	90.28	359.55	9,228.72	5,404.88	425.16	5,401.38	0.00	0.00	0.00
15,000.00	90.28	359.55	9,228.23	5,504.88	424.38	5,501.37	0.00	0.00	0.00
15,100.00	90.28	359.55	9,227.74	5,604.87	423.59	5,601.37	0.00	0.00	0.00
15,200.00	90.28	359.55	9,227.25	5,704.87	422.81	5,701.37	0.00	0.00	0.00
15,300.00	90.28	359.55	9,226.77	5,804.86	422.02	5,801.37	0.00	0.00	0.00
15,400.00	90.28	359.55	9,226.28	5,904.86	421.24	5,901.37	0.00	0.00	0.00
15,500.00	90.28	359.55	9,225.79	6,004.86	420.45	6,001.37	0.00	0.00	0.00
15,600.00	90.28	359.55	9,225.30	6,104.85	419.67	6,101.37	0.00	0.00	0.00
15,700.00	90.28	359.55	9,224.81	6,204.85	418.88	6,201.37	0.00	0.00	0.00
15,800.00	90.28	359.55	9,224.32	6,304.84	418.09	6,301.36	0.00	0.00	0.00
15,900.00	90.28	359.55	9,223.83	6,404.84	417.31	6,401.36	0.00	0.00	0.00
16,000.00	90.28	359.55	9,223.35	6,504.83	416.52	6,501.36	0.00	0.00	0.00
16,100.00	90.28	359.55	9,222.86	6,604.83	415.74	6,601.36	0.00	0.00	0.00
16,200.00	90.28	359.55	9,222.37	6,704.83	414.95	6,701.36	0.00	0.00	0.00
16,300.00	90.28	359.55	9,221.88	6,804.82	414.17	6,801.36	0.00	0.00	0.00
16,400.00	90.28	359.55	9,221.39	6,904.82	413.38	6,901.36	0.00	0.00	0.00
16,500.00	90.28	359.55	9,220.90	7,004.81	412.60	7,001.36	0.00	0.00	0.00
16,600.00	90.28	359.55	9,220.41	7,104.81	411.81	7,101.35	0.00	0.00	0.00
16,700.00	90.28	359.55	9,219.92	7,204.80	411.03	7,201.35	0.00	0.00	0.00
16,800.00	90.28	359.55	9,219.44	7,304.80	410.24	7,301.35	0.00	0.00	0.00
16,900.00	90.28	359.55	9,218.95	7,404.80	409.46	7,401.35	0.00	0.00	0.00
17,000.00	90.28	359.55	9,218.46	7,504.79	408.67	7,501.35	0.00	0.00	0.00
17,100.00	90.28	359.55	9,217.97	7,604.79	407.88	7,601.35	0.00	0.00	0.00
17,200.00	90.28	359.55	9,217.48	7,704.78	407.10	7,701.35	0.00	0.00	0.00
17,300.00	90.28	359.55	9,216.99	7,804.78	406.31	7,801.35	0.00	0.00	0.00
17,400.00	90.28	359.55	9,216.50	7,904.77	405.53	7,901.35	0.00	0.00	0.00
17,500.00	90.28	359.55	9,216.01	8,004.77	404.74	8,001.34	0.00	0.00	0.00
17,600.00	90.28	359.55	9,215.53	8,104.77	403.96	8,101.34	0.00	0.00	0.00
17,700.00	90.28	359.55	9,215.04	8,204.76	403.17	8,201.34	0.00	0.00	0.00
17,800.00	90.28	359.55	9,214.55	8,304.76	402.39	8,301.34	0.00	0.00	0.00
17,900.00	90.28	359.55	9,214.06	8,404.75	401.60	8,401.34	0.00	0.00	0.00
18,000.00	90.28	359.55	9,213.57	8,504.75	400.82	8,501.34	0.00	0.00	0.00
18,100.00	90.28	359.55	9,213.08	8,604.74	400.03	8,601.34	0.00	0.00	0.00
18,200.00	90.28	359.55	9,212.59	8,704.74	399.25	8,701.34	0.00	0.00	0.00
18,300.00	90.28	359.55	9,212.11	8,804.74	398.46	8,801.33	0.00	0.00	0.00

Planning Report

Database:	LEAM Multi_User Db	**Local Co-ordinate Reference:**	Well Dovetail State Com 111H
Company:	Earthstone Operating, LLC	**TVD Reference:**	GE 3638.7' + KB 27.5' @ 3666.20usft
Project:	Lea County, NM (NAD 27)	**MD Reference:**	GE 3638.7' + KB 27.5' @ 3666.20usft
Site:	Dovetail 18 7 State Com	**North Reference:**	Grid
Well:	Dovetail State Com 111H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
18,400.00	90.28	359.55	9,211.62	8,904.73	397.67	8,901.33	0.00	0.00	0.00
18,500.00	90.28	359.55	9,211.13	9,004.73	396.89	9,001.33	0.00	0.00	0.00
18,600.00	90.28	359.55	9,210.64	9,104.72	396.10	9,101.33	0.00	0.00	0.00
18,700.00	90.28	359.55	9,210.15	9,204.72	395.32	9,201.33	0.00	0.00	0.00
18,800.00	90.28	359.55	9,209.66	9,304.71	394.53	9,301.33	0.00	0.00	0.00
18,900.00	90.28	359.55	9,209.17	9,404.71	393.75	9,401.33	0.00	0.00	0.00
19,000.00	90.28	359.55	9,208.68	9,504.71	392.96	9,501.33	0.00	0.00	0.00
19,100.00	90.28	359.55	9,208.20	9,604.70	392.18	9,601.33	0.00	0.00	0.00
19,200.00	90.28	359.55	9,207.71	9,704.70	391.39	9,701.32	0.00	0.00	0.00
19,300.00	90.28	359.55	9,207.22	9,804.69	390.61	9,801.32	0.00	0.00	0.00
19,400.00	90.28	359.55	9,206.73	9,904.69	389.82	9,901.32	0.00	0.00	0.00
19,458.38	90.28	359.55	9,206.44	9,963.07	389.36	9,959.71	0.00	0.00	0.00
LTP (Dovetail 111H)									
19,508.38	90.28	359.55	9,206.20	10,013.06	388.97	10,009.70	0.00	0.00	0.00
PBHL (Dovetail 111H)									

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,676.20	1,676.20	Rustler			
2,106.20	2,106.20	Salado			
3,630.78	3,626.20	Yates			
4,153.66	4,146.20	Capitan Reef			
5,631.80	5,616.20	Cherry Canyon			
6,662.48	6,641.20	Brushy Canyon			
8,070.24	8,041.20	Top BSPG Lime			
9,451.26	9,231.20	1st BSPG Ss			

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description

Effective May 25, 2021

I. Operator: EARTHSTONE OPERATING, LLC **OGRID:** 331165 **Date:** 07/14/2023

II. Type: ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
SEE ATTACHED						

IV. Central Delivery Point Name: DOVETAIL B1 BATTERY [See 19.15.27.9(D)(1) NMAC]

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
SEE ATTACHED						

VI. Separation Equipment: ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

VII. Operational Practices: ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

VIII. Best Management Practices: ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

WELL NAME	API	UL/SECT/T/R	FOOTAGES	ANTICIPATED OIL BBL/D	ANTICIPATED GAS MCF/D	ANTICIPATED WATER BBL/D
DOVETAIL 18 7 STATE COM 221H		LOT 4-18-21S-35E	510 FSL, 493 FWL	700 BBL/D	1200 MCF/D	2600 BBL/D
DOVETAIL 18 7 STATE COM 111H		LOT 4-18-21S-35E	506 FSL, 523 FWL	700 BBL/D	1200 MCF/D	2600 BBL/D
DOVETAIL 18 7 STATE COM 212H		N-18-21S-35E	384 FSL, 2290 FWL	700 BBL/D	1200 MCF/D	2600 BBL/D
DOVETAIL 18 7 STATE COM 112H		N-18-21S-35E	414 FSL, 2290 FWL	700 BBL/D	1200 MCF/D	2600 BBL/D
WELL NAME	API	SPUD	TD	COMPLETION DATE	FLOW BACK DATE	FIRST PRODUCTION
DOVETAIL 18 7 STATE COM 221H		22-NOV-24	12-DEC-24	19-MAR-25	11-MAY-25	12-MAY-25
DOVETAIL 18 7 STATE COM 111H		13-DEC-24	2-JAN-25	19-MAR-25	11-MAY-25	12-MAY-25
DOVETAIL 18 7 STATE COM 212H		8-JAN-25	28-JAN-25	19-MAR-25	11-MAY-25	12-MAY-25
DOVETAIL 18 7 STATE COM 112H		29-JAN-25	18-FEB-25	19-MAR-25	11-MAY-25	12-MAY-25

Section 2 – Enhanced Plan
EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☒ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

XI. Map. ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

XIII. Line Pressure. Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

XIV. Confidentiality: ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

Section 3 - Certifications

Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. ***If Operator checks this box, Operator will select one of the following:***

Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. ☒ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- **(a)** power generation on lease;
- **(b)** power generation for grid;
- **(c)** compression on lease;
- **(d)** liquids removal on lease;
- **(e)** reinjection for underground storage;
- **(f)** reinjection for temporary storage;
- **(g)** reinjection for enhanced oil recovery;
- **(h)** fuel cell production; and
- **(i)** other alternative beneficial uses approved by the division.

Section 4 - Notices

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

Page 8

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature:	
Printed Name:	JENNIFER ELROD
Title:	SR. REGULATORY ANALYST
E-mail Address:	JELROD@EARTHSTONEENERGY.COM
Date:	07/14/2023
Phone:	(940)452-6214

OIL CONSERVATION DIVISION
(Only applicable when submitted as a standalone form)

Approved By:	
Title:	
Approval Date:	
Conditions of Approval:	

ESTE Natural Gas Management
Plan Items VI-VIII

VI. Separation Equipment: Attach a complete description of how Operator will size separation equipment to optimize gas capture.

- Separation equipment will be sized to provide adequate separation for anticipated rates.
- Adequate separation relates to retention time for Liquid – Liquid separation and velocity for Gas-Liquid separation.
- Collection systems are appropriately sized to handle facility production rates on all (3) phases.
- Ancillary equipment and metering are selected to be serviced without flow interruptions or the need to release gas from the well.

VII. Operational Practices: Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F 19.15.27.8 NMAC.

Drilling Operations

- All flare stacks will be properly sized. The flare stacks will be located at a minimum 100' from the nearest surface hole location on the pad.
- All-natural gas produced during drilling operations will be flared, unless there is an equipment malfunction and/or to avoid risk of an immediate and substantial adverse impact on safety and the environment, at which point the gas will be vented.

Completions/Recompletions Operations

- New wells will not be flowed back until they are connected to a properly sized gathering system.
- The facility will be built/sized for maximum anticipated flowrates and pressures to minimize waste.
- For flowback operations, multiple stages of separation will be used as well as excess VRU and blowers to make sure waste is minimized off the storage tanks and facility.
- During initial flowback, the well stream will be routed to separation equipment.
- At an existing facility, when necessary, post separation natural gas will be flared until it meets pipeline specifications, at which point it will be turned into a collection system.
- At a new facility, post separation natural gas will be vented until storage tanks can safely function, at which point it will be flared until it meets pipeline spec.

Production Operations

- Weekly AVOs will be performed on all facilities.
- All flares will be equipped with auto-ignition systems and continuous pilot operations.
- After a well is stabilized from liquid unloading, the well will be turned back into the collection system.
- All tanks will have sight glasses installed, but no electronic gauging equipment.
- Leaking thief hatches found during AVOs will be cleaned and properly re-sealed.
- There will be no gas re-injection for underground storage, temporary storage, or for enhanced oil recovery; however, gas injection will be used for gas lift applications in which the gas would be circulated through a closed loop system.
- If H2S is encountered, gas will be treated to pipeline spec to avoid shut-in's and/or flaring.

Performance Standards

- Production equipment will be designed to handle maximum anticipated rates and pressure.

- All flared gas will be combusted in a flare stack that is properly sized and designed to ensure proper combustion.
- Weekly AVOs will be performed on all wells and facilities that produce more than 50 MCFPD.

Measurement & Estimation

- All volume that is flared or vented that is not measured will be estimated.
- All measurement equipment for flared volumes will conform to API 14.10.
- No meter bypasses with be installed.
- When metering is not practical due to low pressure/low rate, the vented or flared volume will be estimated.

VIII. Best Management Practices: Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

- During downhole well maintenance, ESTE will use best management practices to vent as minimally as possible.
- After downhole well maintenance, natural gas will be flared until it reaches pipeline specification.

Dovetail State Com 111H

Casing and Cement

String	Hole Size	Csg OD	PPF	Depth	Sx Cement	TOC
Surface	14 ¾”	10 ¾”	45.5#	1,750’	600	0’
Intermediate	9 7/8”	8-5/8”	32#	5,717’	1000	0’
Production	7-7/8”	5-1/2”	20#	19508’	1200	3,647’

Well Plan

Drill 14-3/4” hole to ~1,750’ w/ fresh water. Run 10-3/4” 45.5# J-55 BTC casing to TD and cement to surface in one stage.

Drill 9-7/8” hole to ~5,717’ with saturated Brine. Run 8-5/8 32# L-80 MO-FXL to TD and cement to surface in two stages. DVT will be placed at 4,047’ MD.

Drill 7-7/8” vertical hole, curve & lateral to 19,508’ with OBM. Run 5-1/2” 20# P110 BTC casing from TD to surface and cement to 3,647’ in one stage.

Well Control

Type	Working Pressure	Test Pressure	Manufacture
Double Ram	5000 psi	5000 psi	Cameron