

**UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
Buffalo Field Office  
Buffalo, Wyoming**

**SURFACE USE  
CONDITIONS OF APPROVAL  
EA # WY-070-08-154**

POD Name: Augusta Unit Zeta

Operator: Lance Oil & Gas Company Inc.

List of Wells:

	<b>Well Name</b>	<b>Well #</b>	<b>QTR</b>	<b>Sec</b>	<b>TWP</b>	<b>RNG</b>	<b>Lease</b>
1	AUGUSTA UNIT ZETA AUGUSTA	11-4BG	NWNW	4	50N	76W	WYW154406
2	AUGUSTA UNIT ZETA AUGUSTA	11-4WA	NWNW	4	50N	76W	WYW154406
3	AUGUSTA UNIT ZETA AUGUSTA	14-4BG*	SWSW	4	50N	76W	WYW132267
4	AUGUSTA UNIT ZETA AUGUSTA	14-4WA	SWSW	4	50N	76W	WYW132267
5	AUGUSTA UNIT ZETA AUGUSTA	31-4BG	NWNE	4	50N	76W	WYW53240
6	AUGUSTA UNIT ZETA AUGUSTA	31-4WA	NWNE	4	50N	76W	WYW53240
7	AUGUSTA UNIT ZETA AUGUSTA	33-4BG	NWSE	4	50N	76W	WYW53240
8	AUGUSTA UNIT ZETA AUGUSTA	33-4WA	NWSE	4	50N	76W	WYW53240
9	AUGUSTA UNIT ZETA AUGUSTA	34-4BG	SWSE	4	50N	76W	WYW53240
10	AUGUSTA UNIT ZETA AUGUSTA	34-4WA	SWSE	4	50N	76W	WYW53240
11	AUGUSTA UNIT ZETA AUGUSTA	41-4BG	NENE	4	50N	76W	WYW53240
12	AUGUSTA UNIT ZETA AUGUSTA	41-4WA	NENE	4	50N	76W	WYW53240
13	AUGUSTA UNIT ZETA AUGUSTA	43-4BG	NESE	4	50N	76W	WYW53240
14	AUGUSTA UNIT ZETA AUGUSTA	43-4WA	NESE	4	50N	76W	WYW53240
15	AUGUSTA UNIT ZETA POWDER R	11-5BG	NWNW	5	50N	76W	WYW042305
16	AUGUSTA UNIT ZETA POWDER R	11-5WA	NWNW	5	50N	76W	WYW042305
17	AUGUSTA UNIT ZETA POWDER R	13-5BG	NWSW	5	50N	76W	WYW042305
18	AUGUSTA UNIT ZETA POWDER R	13-5WA	NWSW	5	50N	76W	WYW042305
19	AUGUSTA UNIT ZETA POWDER R	21-5BG	NENW	5	50N	76W	WYW042305
20	AUGUSTA UNIT ZETA POWDER R	21-5WA	NENW	5	50N	76W	WYW042305
21	AUGUSTA UNIT ZETA POWDER R	12-6BG	SWNW	6	50N	76W	WYW042305
22	AUGUSTA UNIT ZETA POWDER R	12-6WA	SWNW	6	50N	76W	WYW042305
23	AUGUSTA UNIT ZETA POWDER R	14-6BG	SWSW	6	50N	76W	WYW042305
24	AUGUSTA UNIT ZETA POWDER R	14-6WA	SWSW	6	50N	76W	WYW042305
25	AUGUSTA UNIT ZETA POWDER R	43-6BG	NESE	6	50N	76W	WYW042305
26	AUGUSTA UNIT ZETA POWDER R	43-6WA	NESE	6	50N	76W	WYW042305
27	AUGUSTA UNIT ZETA AUGUSTA	11-9BG	NWNW	9	50N	76W	WYW53240
28	AUGUSTA UNIT ZETA AUGUSTA	11-9WA	NWNW	9	50N	76W	WYW53240

	<b>Well Name</b>	<b>Well #</b>	<b>QTR</b>	<b>Sec</b>	<b>TWP</b>	<b>RNG</b>	<b>Lease</b>
29	AUGUSTA UNIT ZETA AUGUSTA	12-9BG	SWNW	9	50N	76W	WYW53240
30	AUGUSTA UNIT ZETA AUGUSTA	12-9WA	SWNW	9	50N	76W	WYW53240
31	AUGUSTA UNIT ZETA AUGUSTA	32-19BG	SWNE	19	51N	76W	WYW134235
32	AUGUSTA UNIT ZETA AUGUSTA	32-19WA	SWNE	19	51N	76W	WYW134235
33	AUGUSTA UNIT ZETA AUGUSTA	34-19BG	SWSE	19	51N	76W	WYW149360
34	AUGUSTA UNIT ZETA AUGUSTA	34-19WA	SWSE	19	51N	76W	WYW149360
35	AUGUSTA UNIT ZETA AUGUSTA	41-19BG	NENE	19	51N	76W	WYW134235
36	AUGUSTA UNIT ZETA AUGUSTA	41-19WA	NENE	19	51N	76W	WYW134235
37	AUGUSTA UNIT ZETA AUGUSTA	43-19BG	NESE	19	51N	76W	WYW149360
38	AUGUSTA UNIT ZETA AUGUSTA	43-19WA	NESE	19	51N	76W	WYW149360
39	AUGUSTA UNIT ZETA AUGUSTA	12-20BG	SWNW	20	51N	76W	WYW149360
40	AUGUSTA UNIT ZETA AUGUSTA	12-20WA	SWNW	20	51N	76W	WYW149360
41	AUGUSTA UNIT ZETA AUGUSTA	14-20BG	SWSW	20	51N	76W	WYW134236
42	AUGUSTA UNIT ZETA AUGUSTA	14-20WA	SWSW	20	51N	76W	WYW134236
43	AUGUSTA UNIT ZETA AUGUSTA	21-20BG	NENW	20	51N	76W	WYW162029
44	AUGUSTA UNIT ZETA AUGUSTA	21-20WA	NENW	20	51N	76W	WYW162029
45	AUGUSTA UNIT ZETA AUGUSTA	23-20BG	NESW	20	51N	76W	WYW134236
46	AUGUSTA UNIT ZETA AUGUSTA	23-20WA	NESW	20	51N	76W	WYW134236
47	AUGUSTA UNIT ZETA AUGUSTA	12-21BG	SWNW	21	51N	76W	WYW149361
48	AUGUSTA UNIT ZETA AUGUSTA	12-21WA	SWNW	21	51N	76W	WYW149361
49	AUGUSTA UNIT ZETA AUGUSTA	21-21BG	NENW	21	51N	76W	WYW149361
50	AUGUSTA UNIT ZETA AUGUSTA	21-21WA	NENW	21	51N	76W	WYW149361
51	AUGUSTA UNIT ZETA AUGUSTA	32-21BG	SWNE	21	51N	76W	WYW149361
52	AUGUSTA UNIT ZETA AUGUSTA	32-21WA	SWNE	21	51N	76W	WYW149361
53	AUGUSTA UNIT ZETA AUGUSTA	41-21BG	NENE	21	51N	76W	WYW149361
54	AUGUSTA UNIT ZETA AUGUSTA	41-21WA	NENE	21	51N	76W	WYW149361
55	AUGUSTA UNIT ZETA AUGUSTA	43-21BG	NESE	21	51N	76W	WYW149361
56	AUGUSTA UNIT ZETA AUGUSTA	43-21WA	NESE	21	51N	76W	WYW149361
57	AUGUSTA UNIT ZETA AUGUSTA	44-21BG	SESE	21	51N	76W	WYW149361
58	AUGUSTA UNIT ZETA AUGUSTA	44-21WA	SESE	21	51N	76W	WYW149361
59	AUGUSTA UNIT ZETA AUGUSTA	12-28BG	SWNW	28	51N	76W	WYW134236
60	AUGUSTA UNIT ZETA AUGUSTA	12-28WA	SWNW	28	51N	76W	WYW134236
61	AUGUSTA UNIT ZETA AUGUSTA	22-28BG	SENE	28	51N	76W	WYW134236
62	AUGUSTA UNIT ZETA AUGUSTA	22-28WA	SENE	28	51N	76W	WYW134236
63	AUGUSTA UNIT ZETA AUGUSTA	12-29BG	SWNW	29	51N	76W	WYW134236
64	AUGUSTA UNIT ZETA AUGUSTA	12-29WA	SWNW	29	51N	76W	WYW134236
65	AUGUSTA UNIT ZETA AUGUSTA	21-29BG	NENW	29	51N	76W	WYW134236
66	AUGUSTA UNIT ZETA AUGUSTA	21-29WA	NENW	29	51N	76W	WYW134236
67	AUGUSTA UNIT ZETA AUGUSTA	23-29BG	NESW	29	51N	76W	WYW134236
68	AUGUSTA UNIT ZETA AUGUSTA	23-29WA	NESW	29	51N	76W	WYW134236

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69	AUGUSTA UNIT ZETA AUGUSTA	24-29BG	SESW	29	51N	76W	WYW134236
70	AUGUSTA UNIT ZETA AUGUSTA	24-29WA	SESW	29	51N	76W	WYW134236
71	AUGUSTA UNIT ZETA AUGUSTA	23-30BG	NESW	30	51N	76W	WYW149360
72	AUGUSTA UNIT ZETA AUGUSTA	23-30WA	NESW	30	51N	76W	WYW149360
73	AUGUSTA UNIT ZETA AUGUSTA	34-30WA	SWSE	30	51N	76W	WYW149360
74	AUGUSTA UNIT ZETA AUGUSTA	41-30BG	NENE	30	51N	76W	WYW149360
75	AUGUSTA UNIT ZETA AUGUSTA	41-30WA	NENE	30	51N	76W	WYW149360
76	AUGUSTA UNIT ZETA AUGUSTA	43-30BG	NESE	30	51N	76W	WYW149360
77	AUGUSTA UNIT ZETA AUGUSTA	43-30WA	NESE	30	51N	76W	WYW149360
78	AUGUSTA UNIT ZETA AUGUSTA	44-30BG	SESE	30	51N	76W	WYW149360
79	AUGUSTA UNIT ZETA AUGUSTA	12-31BG	SWNW	31	51N	76W	WYW134235
80	AUGUSTA UNIT ZETA AUGUSTA	12-31WA	SWNW	31	51N	76W	WYW134235
81	AUGUSTA UNIT ZETA AUGUSTA	14-31BG	SWSW	31	51N	76W	WYW134235
82	AUGUSTA UNIT ZETA AUGUSTA	14-31WA	SWSW	31	51N	76W	WYW134235
83	AUGUSTA UNIT ZETA AUGUSTA	21-31BG	NENW	31	51N	76W	WYW134235
84	AUGUSTA UNIT ZETA AUGUSTA	21-31WA	NENW	31	51N	76W	WYW134235
85	AUGUSTA UNIT ZETA AUGUSTA	23-31BG	NESW	31	51N	76W	WYW134235
86	AUGUSTA UNIT ZETA AUGUSTA	23-31WA	NESW	31	51N	76W	WYW134235
87	AUGUSTA UNIT ZETA AUGUSTA	32-31BG	SWNE	31	51N	76W	WYW134235
88	AUGUSTA UNIT ZETA AUGUSTA	32-31WA	SWNE	31	51N	76W	WYW134235
89	AUGUSTA UNIT ZETA AUGUSTA	33-31BG	NWSE	31	51N	76W	WYW134235
90	AUGUSTA UNIT ZETA AUGUSTA	33-31WA	NWSE	31	51N	76W	WYW134235
91	AUGUSTA UNIT ZETA AUGUSTA	41-31BG	NENE	31	51N	76W	WYW134235
92	AUGUSTA UNIT ZETA AUGUSTA	41-31WA	NENE	31	51N	76W	WYW134235
93	AUGUSTA UNIT ZETA AUGUSTA	43-31BG	NESE	31	51N	76W	WYW134235
94	AUGUSTA UNIT ZETA AUGUSTA	43-31WA	NESE	31	51N	76W	WYW134235
95	AUGUSTA UNIT ZETA AUGUSTA	12-32BG	SWNW	32	51N	76W	WYW139108
96	AUGUSTA UNIT ZETA AUGUSTA	12-32WA	SWNW	32	51N	76W	WYW139108
97	AUGUSTA UNIT ZETA AUGUSTA	14-32BG	SWSW	32	51N	76W	WYW139108
98	AUGUSTA UNIT ZETA AUGUSTA	14-32WA	SWSW	32	51N	76W	WYW139108
99	AUGUSTA UNIT ZETA AUGUSTA	21-32BG	NENW	32	51N	76W	WYW139108
100	AUGUSTA UNIT ZETA AUGUSTA	21-32WA	NENW	32	51N	76W	WYW139108
101	AUGUSTA UNIT ZETA AUGUSTA	23-32BG	NESW	32	51N	76W	WYW139108
102	AUGUSTA UNIT ZETA AUGUSTA	23-32WA	NESW	32	51N	76W	WYW139108
103	AUGUSTA UNIT ZETA AUGUSTA	31-32BG	NWNE	32	51N	76W	WYW139108
104	AUGUSTA UNIT ZETA AUGUSTA	31-32WA	NWNE	32	51N	76W	WYW139108
105	AUGUSTA UNIT ZETA AUGUSTA	32-32BG	SWNE	32	51N	76W	WYW139108
106	AUGUSTA UNIT ZETA AUGUSTA	32-32WA	SWNE	32	51N	76W	WYW139108
107	AUGUSTA UNIT ZETA AUGUSTA	34-32BG	SWSE	32	51N	76W	WYW139108
108	AUGUSTA UNIT ZETA AUGUSTA	34-32WA	SWSE	32	51N	76W	WYW139108

	<b>Well Name</b>	<b>Well #</b>	<b>QTR</b>	<b>Sec</b>	<b>TWP</b>	<b>RNG</b>	<b>Lease</b>
109	AUGUSTA UNIT ZETA AUGUSTA	44-32BG	SESE	32	51N	76W	WYW139108
110	AUGUSTA UNIT ZETA AUGUSTA	44-32WA	SESE	32	51N	76W	WYW139108
111	AUGUSTA UNIT ZETA AUGUSTA	13-33BG	NWSW	33	51N	76W	WYW86735
112	AUGUSTA UNIT ZETA AUGUSTA	13-33WA	NWSW	33	51N	76W	WYW86735
113	AUGUSTA UNIT ZETA AUGUSTA	23-33BG	NESW	33	51N	76W	WYW86735
114	AUGUSTA UNIT ZETA AUGUSTA	23-33WA	NESW	33	51N	76W	WYW86735
115	AUGUSTA UNIT ZETA AUGUSTA	24-33BG	SESW	33	51N	76W	WYW86735
116	AUGUSTA UNIT ZETA AUGUSTA	24-33WA	SESW	33	51N	76W	WYW86735
117	AUGUSTA UNIT ZETA AUGUSTA	44-33BG	SESE	33	51N	76W	WYW86735
118	AUGUSTA UNIT ZETA AUGUSTA	44-33WA	SESE	33	51N	76W	WYW86735
119	AUGUSTA UNIT ZETA AUGUSTA	12-34BG	SWNW	34	51N	76W	WYW86735
120	AUGUSTA UNIT ZETA AUGUSTA	12-34WA	SWNW	34	51N	76W	WYW86735
121	AUGUSTA UNIT ZETA AUGUSTA	14-34BG	SWSW	34	51N	76W	WYW139109
122	AUGUSTA UNIT ZETA AUGUSTA	14-34WA	SWSW	34	51N	76W	WYW139109
123	AUGUSTA UNIT ZETA AUGUSTA	22-34BG	SESW	34	51N	76W	WYW90975
124	AUGUSTA UNIT ZETA AUGUSTA	22-34WA	SESW	34	51N	76W	WYW90975
125	AUGUSTA UNIT ZETA AUGUSTA	23-34BG	NESW	34	51N	76W	WYW139109
126	AUGUSTA UNIT ZETA AUGUSTA	23-34WA	NESW	34	51N	76W	WYW139109
127	AUGUSTA UNIT ZETA AUGUSTA	32-34BG	SWNE	34	51N	76W	WYW90975
128	AUGUSTA UNIT ZETA AUGUSTA	32-34WA	SWNE	34	51N	76W	WYW90975
129	AUGUSTA UNIT ZETA AUGUSTA	34-34BG	SWSE	34	51N	76W	WYW139109
130	AUGUSTA UNIT ZETA AUGUSTA	34-34WA	SWSE	34	51N	76W	WYW139109
131	AUGUSTA UNIT ZETA AUGUSTA	41-34BG	NENE	34	51N	76W	WYW90975
132	AUGUSTA UNIT ZETA AUGUSTA	41-34WA	NENE	34	51N	76W	WYW90975
133	AUGUSTA UNIT ZETA AUGUSTA	42-34BG	SENE	34	51N	76W	WYW90975
134	AUGUSTA UNIT ZETA AUGUSTA	42-34WA	SENE	34	51N	76W	WYW90975

List of approved Right-of Ways:

The approval of this project does not grant authority to use off lease federal lands. No surface disturbing activity, or use of off-lease federal lands, is allowed on affected leases until right-of-way grants become effective on the date in which the right-of-way grant is signed by the authorized officer of the BLM.

<b>Amend Grant</b>	<b>ROW Action</b>	<b>SEC.</b>	<b>T.</b>	<b>R.</b>	<b>Length</b>	<b>Width</b>
WYW-161617	Road, Water & Electric	6,15,22,32	50/51	76	3290-add	45',30', 20'
WYW-163668	Gas	6,15,22,32	50/51	76	3290-add	30'

**I Programmatic mitigation measures identified in the PRB FEIS ROD**

Programmatic mitigation measures are those, determined through analysis, which may be appropriate to apply at the time of APD approval if site specific conditions warrant. These mitigation measures can be applied by BLM, as determined necessary at the site-specific NEPA APD stage, as COAs and will be in addition to stipulations applied at the time of lease issuance and any standard COA.

### **Surface Water**

1. Channel Crossings:
  - a) Channel crossings by road and pipelines will be constructed perpendicular to flow. Culverts will be installed at appropriate locations for streams and channels crossed by roads as specified in the BLM Manual 9112-Bridges and Major Culverts and Manual 9113-Roads. Streams will be crossed perpendicular to flow, where possible, and all stream crossing structures will be designed to carry the 25-year discharge event or other capacities as directed by the BLM.
  - b) Channel crossings by pipelines will be constructed so that the pipe is buried at least four feet below the channel bottom.
2. Low water crossings will be constructed at original streambed elevation in a manner that will prevent any blockage or restriction of the existing channel. Material removed will be stockpiled for use in reclamation of the crossings.

### **Wildlife**

1. For any surface-disturbing activities proposed in sagebrush shrublands, the Companies will conduct clearance surveys for sage grouse breeding activity during the sage grouse's breeding season before initiating the activities. The surveys must encompass all sagebrush shrublands within 0.5 mile of the proposed activities.
2. The Companies will locate facilities so that noise from the facilities at any nearby sage grouse or sharp-tailed grouse display grounds does not exceed 49 decibels (10 dBA above background noise) at the display ground.
3. All stock tanks shall include a ramp to enable trapped small birds and mammals to escape. See Idaho BLM Technical Bulletin 89-4 entitled Wildlife Watering and Escape Ramps on Livestock Water Developments: Suggestions and Recommendations.

### **Threatened, Endangered, or Sensitive Species**

#### **Bald Eagle**

1. A disturbance-free buffer zone of 0.5 mile (i.e., no surface occupancy) will be established year-round for all bald eagle nest sites. A seasonal minimal disturbance buffer zone of one mile will be established for all bald eagle nest sites (February 15 – August 15).
2. A disturbance-free buffer zone of 0.5 mile (i.e., no surface occupancy) will be established year-round for all bald eagle winter roost sites. A seasonal minimal disturbance buffer zone of 1 mile will be established for all bald eagle winter roost sites (November 1 – April 1). These buffer zones and timing may be adjusted based on site-specific information through coordination with, and written approval from, the USFWS.
3. Within ½ mile of bald eagle winter roost sites additional measures such as remote monitoring and restricting maintenance visitation to between 9:00 and 3:00 may be necessary to prevent disturbance (November 1 – April 1).
4. Additional mitigation measures may be necessary if the site-specific project is determined by a BLM biologist to have adverse effects to bald eagles or their habitat.

#### **Mountain Plover**

1. Outside of occupied black-tailed prairie dog colonies, a mountain plover nesting survey following U.S. Fish and Wildlife Service protocol is encouraged prior to construction initiation, as project modifications can be made if necessary to protect nesting plovers and natural gas production. If

requested in writing, then authorization may be granted for construction activities to occur between August 1 and March 15, outside the mountain plover breeding season. A mountain plover nesting survey following U.S. Fish and Wildlife Service protocol shall be conducted during the first available survey period (May 1 – June 15). Additional measures such as monitoring and activity restrictions may be applied if mountain plovers are documented.

2. A disturbance-free buffer zone of 0.25 mile will be established around all occupied mountain plover nesting habitat between March 15 and July 31.
3. Project-related features that encourage or enhance the hunting efficiency of predators of mountain plover will not be constructed within ¼ mile of occupied mountain plover nesting habitat.
4. Work schedules and shift changes will be set to avoid the periods from 30 minutes before to 30 minutes after sunrise and sunset during June and July, when mountain plovers and other wildlife are most active.

#### **Ute Ladies'-tresses Orchid**

1. Suitable habitat will be avoided wherever possible.
2. If suitable habitat for Ute ladies'-tresses cannot be avoided, surveys will be conducted in compliance with USFWS standards (USFWS 1995) by a BLM approved biologist or botanist. Surveys can only be conducted between July 20 and August 31.

#### **Visual Resources**

1. The Companies will mount lights at compressor stations and other facilities on a pole or building and direct them downward to illuminate key areas within the facility while minimizing the amount of light projected outside the facility.

#### **Noise**

1. Noise mufflers will be installed on the exhaust of compressor engines to reduce the exhaust noise.

#### **Air Quality**

1. During construction, emissions of particulate matter from well pad and resource road construction will be minimized by application of water, or other dust suppressants, with at least 50 percent control efficiency. Roads and well locations constructed on soils susceptible to wind erosion could be appropriately surfaced or otherwise stabilized to reduce the amount of fugitive dust generated by traffic or other activities, and dust inhibitors (surfacing materials, non-saline dust suppressants, and water) could be used as necessary on unpaved collector, local and resource roads that present a fugitive dust problem. The use of chemical dust suppressants on BLM surface will require prior approval from the BLM authorized officer.

## **II Site specific mitigation measures**

All changes made at the onsite will be followed. They have all been incorporated into the operator's POD. See Attachment 1 for specific changes.

1. The operator will follow the guidance provided in the Wyoming Policy on Reclamation (IM WY-2009-022) specifically the following:

RECLAMATION GOALS

1. Short term goal: immediately stabilize disturbed areas and provide conditions necessary to achieve the long term goal.
2. Long term goal: facilitate eventual ecosystem reconstruction to maintain a safe and stable landscape and meet the desired outcomes of the land use plan.

Reclamation Standards:

1. The reclaimed area shall be stable and exhibit none of the following characteristics:
    - a. Large rills or gullies.
    - b. Perceptible soil movement or head cutting in drainages.
    - c. Slope instability on, or adjacent to, the reclaimed area in question.
  2. The soil surface must be stable and have adequate surface roughness to reduce runoff and capture rainfall and snow melt. Additional short-term measures, such as the application of mulch, shall be used to reduce surface soil movement.
  3. Vegetation canopy cover (on unforested sites), production and species diversity (including shrubs) shall approximate the surrounding undisturbed area. The vegetation shall stabilize the site and support the planned post disturbance land use, provide for natural plant community succession and development, and be capable of renewing itself. This shall be demonstrated by:
    - a. Successful onsite establishment of species included in the planting mixture or other desirable species.
    - b. Evidence of vegetation reproduction, either spreading by rhizomatous species or seed production.
  4. The reclaimed landscape shall have characteristics that approximate the visual quality of the adjacent area with regard to location, scale, shape, color and orientation of major landscape features and meet the needs of the planned post disturbance land use.
2. Provide 4” of aggregate where grades exceed 8%.
  3. Surfacing material will be from a permitted pit. The parent material (rock) must be crushed and screened to meet road standards as set forth in Wyoming Supplement to BLM Road Manual 9113.
  4. The culvert locations will be staked prior to construction. The culvert invert grade and finished road grade will be clearly indicated on the stakes. Culverts will be installed on natural ground, or on a designed flow line of a ditch. The minimum cover over culverts will be 12” or one-half the diameter whichever is greater. Drainage laterals in the form of culverts or water dips shall be placed according to the following spacing:

<u>Grade</u>	<u>Drainage Spacing</u>
2-4%	240 ft
5-8%	180 ft
9-12%	140 ft
12-16%	100 ft

5. If produced water is to be applied to road surfaces as dust abatement, the operator needs an approved Wyoming Oil & Gas Commission Facility Information for Road Application of Waste and Waste Water (Form 20) along with the proposed action describing locations, application rates, etc. Form 20 is available at <http://wogcc.state.wy.us>.

6. All permanent above-ground structures (e.g., production equipment, tanks, etc.) not subject to safety requirements will be painted to blend with the natural color of the landscape. The paint used will be a color which simulates “Standard Environmental Colors.” The color selected for the Augusta Unit Zeta POD is Covert Green.
7. Adequate drainage control must be in place at all stages of construction and culverts installed as soon as feasible.
8. Final grading and surfacing shall occur immediately after utility installation is complete. All rills, gullies, and other surface defects shall be ripped to the full depth of erosion across the entire width of the roadway prior to final grading and surfacing.

9. Horizontal curves with radius less than 220 feet require curve widening as follows:

Turning Radius (ft)	Min. Curve Widening (ft)	Widened Lane Width (ft)
220 +	0	12
120 to 219	2	14
90 to 119	4	16
50 to 89	8	20

10. All roads, well pads, rig slot, culverts, spot upgrades and locations where engineered construction will occur will be completely slope staked for the pre-construction meeting.
11. The operator is responsible for having the licensed professional engineer certify that the actual construction of the road meets the design criteria and is constructed to Bureau standards.
12. Disturbance for pipelines and utility corridors adjacent to access roads will be contained within the disturbance allowed for road construction. Allowances will be granted for culverts, low water crossings, gas/electric metering points and valve sets.
13. Pipeline installation and/or corridors without road access will not exceed a disturbance width of 40 feet with clearing and blading not to exceed 30 feet.
14. Utility corridors will be expediently reclaimed following construction and maintained in a professional and workmanship manner avoiding tire rutting, settling and erosion.
15. A minimum 20 foot undisturbed vegetative buffer will be maintained for erosion features and drainages.
16. Mowing at the well site where a constructed pad is not approved as designed will be minimized to a 35 foot radius of the well(s) stake unless otherwise stated in the “Changes agreed to during the onsite” Attachment 1.
17. The operator will maintain well drilling, completion and associated construction operations within a 150 foot by 200 foot work area for those locations where a constructed pad design is not approved.
18. Reserve pits containing frozen fluids will not be closed. See “Operations/Maintenance”, COA #11 of the Conditions of Approval document for further clarification.
19. Top soil will be segregated for all excavation including the entire disturbance area for constructed pads and excavated areas for rig slots, reserve pits, constructed roads, spot upgrades, reservoir

upgrades, outfalls and utility trenches. Segregation will not be required for trenches installed with wheel trenchers.

20. Segregated top soil at well sites will be redistributed once the instillation of gas, water and electrical utilities is complete at the well head.
21. Trenches will not be left open over night unless temporarily fenced to prevent entrapment of livestock and wildlife.
22. Disturbance areas within the Augusta Unit Zeta POD have fragile soils and erosive conditions that shall be stabilized in a manner which eliminates erosion until a self-perpetuating non-weed native plant community has stabilized the site. These areas are identified in the road descriptions and engineered designs included in the MSUP, Access Roads Component to the Surface Use Plan, engineered road and well pad designs. Stabilization efforts shall be finished within 30 days of the completion of project specific construction activities.
23. The operator will drill seed on the contour to a depth not to exceed 0.5 inch, followed by cultipaction to compact the seedbed, preventing soil and seed losses. To maintain quality and purity, the current years tested, certified seed with a minimum germination rate of 80% and a minimum purity of 90% will be used. See page 18 & 19 of the Augusta Unit Zeta Master Surface Use Plan for the appropriate seed mix as per soil type.
24. Maximum design speed on all operator-constructed and maintained roads will not exceed 25 miles per hour. Access roads are to be signed accordingly.

#### **Surface Use**

1. Disturbance areas listed below in **Attachment 1 Changes Agreed to at the Onsite** identify where expedient reclamation has been added to the operator's plan due to fragile soils and erosive conditions that shall be stabilized in a manner which eliminates erosion until a self-perpetuating non-weed native plant community has stabilized the site. Stabilization efforts shall be finished within 30 days of the completion of construction activities.
2. All access roads described within the Augusta Unit Zeta POD Road Designs package will be constructed to finished grade and as designed prior to the drilling of the associated wells.
3. The engineered Road "Section 21 Alternate", plan and profile sheets 32-33 of the Augusta Unit Zeta POD Road Designs package, is not authorized and **will not be constructed**.
4. The Road M3-2 crosses the Puff Reservoir dam at Stations 17+00 to 21+00. Any signs of structural failure of the dam (cracks, seeps, slumping, etc.) will result in the immediate closer of this access road. The access road would remain closed until repairs are completed and inspected by BLM civil engineer.

#### **Rights of Ways**

1. The approval of this project does not grant authority to use off lease federal lands. No surface disturbing activity, or use of off-lease federal lands, is allowed on affected leases until right-of-way grants become effective on the date in which the right-of-way grant is signed by the authorized officer of the BLM.

#### **Wildlife**

*Bald Eagles*

The following conditions will alleviate impacts to bald eagles:

1. No project related actions shall occur within one mile of bald eagle habitat along the Upper Powder River annually from November 1 through April 1 (CM9), prior to a winter roost survey or from February 1 through August 15 (CM8) prior to a nesting survey. This timing limitation will be in effect unless surveys determine the nest/roost to be inactive.
  - a. If a roost is identified and construction has not been completed, a year-round disturbance-free buffer zone of 0.5 mile will be established for all bald eagle winter roost sites. A seasonal minimum disturbance buffer zone of 1 mile will be established for all bald eagle roost sites (November 1 - April 1). Additional measures such as remote monitoring and restricting maintenance visitation to between 9:00 AM and 3:00 PM may be necessary to prevent disturbance.
  - b. If a nest is identified and construction has not been completed, a disturbance-free buffer zone of 0.5 mile (i.e., no surface occupancy) would be established year round for all bald eagle nests. A seasonal minimum disturbance buffer zone of 1 mile will be established for all bald eagle nest sites (February 1 - August 15).
2. Additional mitigation measures may be necessary if the site-specific project is determined by a Bureau biologist to have an adverse affect to bald eagles or their habitat.

*Big Game*

1. No surface disturbing activity shall occur within identified elk crucial winter range from November 15 to April 30. This timing limitation will affect the following

<b>Township/Range</b>	<b>Section</b>	<b>Wells and Infrastructure</b>
T50N/R76W	3	All associated access road and utility corridor within the NWNW NENW, NENE & SENW of this section.
T50N/R76W	4	Well Locations: 11-4-5076, 31-4-5076 & 41-4-5076 All associated access road and utility corridor within the NWNW NENW & NE of this section.
T50N/R76W	5	Well Locations: 11-5-5076 and 21-5-5076 All associated access road and utility corridor within the NWNW, NENW, NWNE, & NENE of this section.
T51N/R76W	15	All associated access road and utility corridor within the SWSW of this section.
T51N/R76W	16	All associated access road and utility corridor within the SESE & SWSE of this section.
T51N/R76W	19	Well Locations: 32-19-5176, 34-19-5176, 41-19-5176 & 43-19-5176 All associated access road and utility corridor within the NE, SE & SW of this section.
T51N/R76W	20	Well Locations: 12-20-5176, 14-20-5176, 21-20-5178, 23-20-5176 All associated access road and utility corridor within this ENTIRE section.
T51N/R76W	21	Well Locations: 12-21-5176, 21-21-5176, 32-21-5176 & 41-21-5176 All associated access road and utility corridor within this ENTIRE section.
T51N/R76W	22	All associated access road and utility corridor within the SWSW of this section.
T51N/R76W	28	Well Locations: 12-28-5176 & 22-28-5176, All associated access road and utility corridor within this ENTIRE section.

<b>Township/Range</b>	<b>Section</b>	<b>Wells and Infrastructure</b>
T51N/R76W	29	Well Locations: 12-29-5176, 21-29-5176, 23-29-5176 & 24-29-5176 All associated access road and utility corridor within this ENTIRE section.
T51N/R76W	30	Well Locations: 23-30-5176, 34-30-5176, 41-30-5176 & 44-30-5176 All associated access road and utility corridor within this ENTIRE section.
T51N/R76W	31	Well Locations: 12-31-5176, 14-31-5176, 21-31-5176, 23-31-5176, 32-31-5176 & 33-31-5176 All associated access road and utility corridor within this ENTIRE section.
T51N/R76W	32	Well Locations: 12-32-5176, 14-32-5176, 21-32-5176, 23-31-5176, 31-32-5176, 32-32-5176, 34-32-5176 & 44-32-5176 All associated access road and utility corridor within this ENTIRE section.
T51N/R76W	33	Well Locations: 13-33-5176, 23-33-5176, 24-33-5176 & 44-33-5176 All associated access road and utility corridor within this ENTIRE section.
T51N/R76W	34	Well Locations: 14-34-5176 & 23-34-5176 All associated access road and utility corridor within this ENTIRE section.
T51N/R76W	35	All associated access road and utility corridor within the NW & SW of this section.

2. No surface disturbing activity shall occur within identified elk calving range from May 1 to June 30. This timing limitation will affect the following

<b>Township/Range</b>	<b>Section</b>	<b>Wells and Infrastructure</b>
T50N/R76W	3	All associated access road and utility corridor within the NW & NE of this section.
T50N/R76W	4	Well Locations: 11-4-5076, 31-4-5076, 33-4-5076, 34-4-5076, 41-4-5076 & 43-4-5076 All associated access road and utility corridor within this ENTIRE section.
T50N/R76W	5	Well Locations: 11-5-5076 and 21-5-5076 All associated access road and utility corridor within the NWNW, NENW, NWNE, & NENE of this section.
T50N/R76W	6	Well Locations: 12-6-5076, 14-6-5076 & 43-6-5076 All associated access road and utility corridor within this ENTIRE section.
T50N/R76W	9	Well Locations: 11-9-5076 & 12-9-5076 All associated access road and utility corridor within this ENTIRE section.
T51N/R76W	19	Well Locations: 32-19-5176, 34-19-5176, 41-19-5176 & 43-19-5176 All associated access road and utility corridor within the SE, SW & NE of this section.
T51N/R76W	20	Well Locations: 12-20-5176, 14-20-5176, 21-20-5176 & 23-20-5176 All associated access road and utility corridor within the NE & SW of this section.

<b>Township/Range</b>	<b>Section</b>	<b>Wells and Infrastructure</b>
T51N/R76W	21	Well Locations: 12-21-5176, 21-21-5176, 32-21-5176 & 41-21-5176 All associated access road and utility corridor within the NWNW & NENW of this section.
T51N/R76W	22	All associated access road and utility corridor within the NWNW of this section.
T51N/R76W	28	All associated access road and utility corridor within the SWSW of this section.
T51N/R76W	29	Well Locations: 12-29-5176, 21-29-5176, 23-29-5176 & 24-29-5176 All associated access road and utility corridor within this ENTIRE section.
T51N/R76W	30	Well Locations: 23-30-5176, 34-30-5176, 41-30-5176, 43-30-5176 & 44-30-5176 All associated access road and utility corridor within this ENTIRE section.
T51N/R76W	31	Well Locations: 12-31-5176, 14-31-5176, 21-31-5176, 23-31-5176, 32-31-5176 & 33-31-5176 All associated access road and utility corridor within this ENTIRE section.
T51N/R76W	32	Well Locations: 12-32-5176, 14-32-5176, 21-32-5176, 23-31-5176, 31-32-5176, 32-32-5176, 34-32-5176 & 44-32-5176 All associated access road and utility corridor within this ENTIRE section.
T51N/R76W	33	Well Locations: 13-33-5176, 23-33-5176, 24-33-5176 & 44-33-5176 All associated access road and utility corridor within the SESE & SW of this section.
T51N/R76W	34	Well Locations: 14-34-5176 All associated access road and utility corridor within the SWSW of this section.
T51N/R77W	24	All associated access road and utility corridor within the SE of this section.

- The operator will provide BLM with a proposed work schedule at the pre-construction meeting and a work summary report, due by the 12<sup>th</sup> of each month. The report shall summarize the work activities from the previous month, what activities were conducted, where the work was conducted, when the work was conducted, and any elk observations shall be recorded. The report shall also include the proposed activity schedule for the next month. The summary report shall be compared with the elk monitoring data to evaluate cause and affect relationships.

#### *Burrowing Owls*

The following conditions will alleviate impacts to burrowing owls:

- No surface disturbing activity shall occur within 0.25 miles of all identified prairie dog colonies from April 15 to August 31, annually, prior to a burrowing owl nest occupancy survey for the current breeding season. A 0.25 mile buffer will be applied if a burrowing owl nest is identified. This condition will be implemented on an annual basis for the duration of surface disturbing activities within the prairie dog town(s). This timing limitation will be in effect unless surveys determine the nest(s) to be inactive. This timing limitation will affect the following

<b>Township/Range</b>	<b>Section</b>	<b>Wells and Infrastructure</b>
T51N/R76W	21	All associated access road and utility corridor within the EAST HALF

Township/Range	Section	Wells and Infrastructure
		NENE of this section.
T51N/R76W	22	All associated access road and utility corridor within the NW of this section.

*Mountain Plover*

The following conditions will alleviate impacts to mountain plovers:

1. A mountain plover nesting survey is required in suitable habitat prior to commencement of surface disturbing activities in the following areas:

Township/Range	Section	Wells and Infrastructure
T51N/R76W	21	All associated access road and utility corridor within the EAST HALF NENE of this section.
T51N/R76W	22	All associated access road and utility corridor within the NW of this section.

Mountain plover nesting surveys shall be conducted by a biologist following the most current USFWS Mountain Plover Survey Guidelines (the survey period is May 1-June 15). All survey results must be submitted in writing to the BFO and approved prior to initiation of surface disturbing activities.

- a. No surface disturbing activities are permitted in the suitable habitat area listed above, from March 15-July 31, unless a mountain plover nesting survey has been conducted during the current breeding season. This timing limitation will be in effect unless surveys determine no plovers are present. This timing limitation will affect the following:

Township/Range	Section	Wells and Infrastructure
T51N/R76W	21	All associated access road and utility corridor within the EAST HALF NENE of this section.
T51N/R76W	22	All associated access road and utility corridor within the NW of this section.

- b. Mountain plover nesting surveys shall be conducted by a biologist following the most current USFWS Mountain Plover Survey Guidelines (the survey period is May 1-June 15). All survey results must be submitted in writing to the BFO and approved prior to initiation of surface disturbing activities.
  - i. If occupied mountain plover habitat is identified, then a seasonal disturbance-free buffer of ¼ mile shall be maintained between March 15 and July 31. If no mountain plover observations are identified, then surface disturbing activities may be permitted within suitable habitat until the following breeding season (March 15).
- c. No dogs will be permitted at work sites to reduce the potential for harassment of mountain plovers.

*Raptors*

The following conditions will alleviate impacts to raptors:

1. No surface disturbing activity shall occur within 0.5 mile of all identified raptor nests from February 1 through July 31, annually, prior to a raptor nest occupancy survey for the current breeding season. This timing limitation will affect the following:

Township/Range	Section	Wells and Infrastructure
T50N/R76W	4	Well Locations: 11-4-5076, 31-4-5176, 33-4-5076 & 41-4-5076 All associated access road and utility corridor within the NW, NE &

Township/Range	Section	Wells and Infrastructure
		S ½ NWSE of this section.
T50N/R76W	6	Well Locations: 14-6-5076 & 43-6-5076 All associated access road and utility corridor within the SW & NESE of this section.
T50N/R76W	9	All associated access road and utility corridor within the SWNE, SENE, S ½ NENE, SENW & E ¼ NWSW of this section.
T51N/R76W	15	All associated access road and utility corridor within the SWSW of this section.
T51N/R76W	16	All associated access road and utility corridor within the E ¼ SESE of this section.
T51N/R76W	20	Well Locations: 12-20-5176, 21-20-5176 & 23-20-5176 All associated access road and utility corridor within this ENTIRE section EXCEPT the SWSW of this section.
T51N/R76W	21	Well Location: 44-21-5176 All associated access road and utility corridor within the SESE of this section.
T51N/R76W	22	All associated access road and utility corridor within the NWNW of this section.
T51N/R76W	28	Well Locations: 12-28-5176 & 22-28-5176 All associated access road and utility corridor within the SWSW, NWSW, SWNW & SENW of this section.
T51N/R76W	29	Well Location: 21-29-5176 All associated access road and utility corridor within the N ½ SENW & NENW of this section.
T51N/R76W	32	Well Locations: 34-32-5176 & 44-32-5176 All associated access road and utility corridor within the SE of this section.
T51N/R76W	33	Well Locations: 13-33-5176, 23-33-5176 & 34-33-5176 All associated access road and utility corridor within the SW of this section.

- a. Surveys to document nest occupancy shall be conducted by a biologist following BLM protocol, between April 15 and June 30. All survey results shall be submitted in writing to a Buffalo BLM biologist and approved prior to surface disturbing activities. Surveys outside this window may not depict nesting activity. If a survey identifies active raptor nests, a 0.5 mile timing buffer will be implemented. The timing buffer restricts surface disturbing activities within 0.5 mile of occupied raptor nests from February 1 to July 31.
- b. Nest productivity checks shall be completed for the first five years following project completion. The productivity checks shall be conducted no earlier than June 1 or later than June 30 and any evidence of nesting success or production shall be recorded. Survey results will be submitted to a Buffalo BLM biologist in writing no later than July 31 of each survey year. This applies to the following nest(s):

BLM ID	Species	UTMs	Legal
622	Red-tailed Hawk	418214E 4915085N	SENE Sec.20, T51N/R76W
2657	Red-tailed Hawk	422233E 4915609N	SESE Sec.15, T51N/R76W

<b>BLM ID</b>	<b>Species</b>	<b>UTMs</b>	<b>Legal</b>
2658	Red-tailed Hawk	421346E 4916175N	NESW Sec. 15, T51N/R76W
2659	Great Horned Owl	420893E 4916504N	SWNW Sec. 15, T51N/R76W
3350	Red-tailed Hawk	421385E 4916067N	NESW Sec. 15, T51N/R76W
3724	Red-tailed Hawk	420043E 4908002N	NWSW Sec. 9, T51N/R76W
3807	Great Horned Owl	420232E 4917471N	SWSE Sec. 9, T51N/R76W
3808	Red-tailed Hawk	419791E 4917890N	SESW Sec. 9, T51N/R76W
5098	Great Horned Owl	422205E 4915689N	SESE Sec. 15, T51N/R76W
5099	American Kestrel	422299E 4915655N	SESE Sec. 15, T51N/R76W
5101	Unknown Raptor	421234E 4916124N	NESW Sec. 15, T51N/R76W
5123	Red-tailed Hawk	419434E 4912492N	SESW Sec. 28, T51N/R76W
5125	Unknown Raptor	421390E 4914695N	SESW Sec. 22, T51N/R76W
5126	Red-tailed Hawk	420154E 4913542N	NWNE Sec. 28, T51N/R76W
5128	Great Horned Owl	420774E 4917190N	SESE Sec. 9, T51N/R76W
5201	Red-tailed Hawk	415666E 4908409N	SWNW Sec. 7, T51N/R76W
5202	Unknown Raptor	417754E 4908606N	NENW Sec. 7, T51N/R76W
5847	Unknown Raptor	416659E 4909244N	SWSE Sec. 6, T51N/R76W
5848	Red-tailed Hawk	418117E 4907042N	SWSE Sec. 17, T51N/R76W
5849	Red-tailed Hawk	420619E 4917275N	NESE Sec. 9, T51N/R76W
5850	Red-tailed Hawk	415315E 4908498N	SENE Sec. 12, T50N/R77W
5851	Red-tailed Hawk	415123E 4909666N	NWSE Sec. 1, T50N/R77W
5852	Unknown Raptor	418065E 4908897N	NENW Sec. 8, T50N/R76W
5853	Unknown Raptor	419120E 4910798N	SWSW Sec. 33, T51N/R76W
5854	Unknown Raptor	419535E 4910157N	NENW Sec. 4, T52N/R76W

BLM ID	Species	UTMs	Legal
5855	Red-tailed Hawk	416400E 4920519N	SESW Sec. 31, T51N/R76W
5856	Red-tailed Hawk	418434E 4913909N	SWSE Sec. 20, T51N/R76W
5857	Red-tailed Hawk	416836E 4908924N	NENE Sec. 7, T50N/R76W
5858	Red-tailed Hawk	418699E 4918417N	SWSE Sec. 8, T51N/R76W
5859	Unknown Raptor	419114E 4910886N	SWSW Sec. 33, T51N/R76W
5860	Great Horned Owl	416512E 4916281N	SESW Sec. 18, T51N/R76W
5861	Unknown Raptor	417090E 4919479N	NWSE Sec. 6, T51N/R76W
5862	Unknown Raptor	416795E 4919545N	NWSE Sec. 6, T51N/R76W

2. If an undocumented raptor nest is located during project construction or operation, the Buffalo Field Office (307-684-1100) shall be notified within 24 hours.
3. Well metering, maintenance and other site visits within 0.5 miles of raptor nests should be minimized as much as possible during the breeding season (February 1 – July 31).

#### *Sage Grouse*

The following conditions will alleviate impacts to sage-grouse:

- a. No surface disturbing activities are permitted from March 1 to June 15. This condition will be implemented on an annual basis for the life of the project. This condition affects the following locations:

Township/Range	Section	Wells and Infrastructure
T50N/R76W	3	All associated access road and utility corridor within the SENW, NENW & S2NWNW of this section.
T50N/R76W	4	Well Locations: <b>14-4-5076, 43-4-5076 &amp; 34-4-5076</b> All associated access road and utility corridor within the <b>SESE, SWSE, NWSE &amp; S2NESE</b> of this section.
T50N/R76W	5	Well Locations: <b>11-5-5076 &amp; 13-5-5076 and associated access road with utility corridor proposed.</b>
T50N/R76W	6	Well Locations: <b>14-6-5076 &amp; 43-6-5076 and associated access road with utility corridor proposed.</b>
T50N/R76W	9	Well Locations: <b>11-9-5076 &amp; 12-9-5076</b> All associated access road and utility corridor within the <b>NWNW, SWNW, SENW, NENE, SENE, SWNE, SWSW &amp; NWSW</b> of this section.
T51N/R76W	16	All associated access road and utility corridor within the <b>SESE &amp; SWSE</b> of this section.
T51N/R76W	19	Well Locations: <b>34-19-5176 &amp; 41-19-5176</b> All associated access road and utility corridor within the <b>NENW, SENW, SWNW, NESW &amp; SESW</b> of this section.
T51N/R76W	20	Well Locations: <b>12-20-5176, 21-20-5176 &amp; 23-20-</b>

Township/Range	Section	Wells and Infrastructure
		<b>5176</b> All associated access road and utility corridor within the <b>NENW, SENW, SWNW, NESW &amp; SESW</b> of this section.
T51N/R76W	21	Well Locations: <b>12-21-5176, 21-21-5176, 32-21-5176, 41-21-5176, 43-21-5176 &amp; 44-21-5176</b> All associated access road and utility corridor within the <b>NWNW, NENW, SESE, NESE, NENE &amp; NWNW</b> of this section.
T51N/R76W	22	All associated access road and utility corridor within the <b>NWNW</b> of this section.
T51N/R76W	28	Well Locations: <b>12-28-5176 &amp; 22-28-5176</b> All associated access road and utility corridor within the <b>NWSW &amp; SWNW</b> of this section.
T51N/R76W	29	All associated access road and utility corridor within the <b>NESWSENW &amp; NESESW</b> of this section.
T51N/R76W	30	Well Locations: <b>23-30-5176 &amp; 43-30-5176</b> All associated access road and utility corridor within the <b>NESW</b> of this section.
T51N/R76W	31	Well Locations: <b>12-31-5176, 14-31-5176, 32-31-5176, 41-31-5176 &amp; 43-31-5176</b> All associated access road and utility corridor within the <b>SE, SWSW, SENE, &amp; NENE</b> of this section.
T51N/R76W	32	Well Locations: <b>12-32-5176, 14-32-5176, 21-32-5176, 23-32-5176 &amp; 34-32-5176</b> All associated access road and utility corridor within the <b>SESE, SWSE, SWSW, NWNE &amp; NWNW</b> of this section.
T51N/R76W	33	Well Locations: <b>44-33-5176</b> All associated access road and utility corridor within the <b>SESE</b> of this section.
T51N/R76W	34	Well Locations: <b>22-34-5176, 23-34-5176 &amp; 34-34-5176</b> All associated access road and utility corridor within the <b>SENE, SENW, SWNW, NESW, W2SWSW, SENE, NESE &amp; SWSE</b> of this section.
T51N/R76W	35	All associated access road and utility corridor within the <b>NENW, NWNW &amp; SENW</b> of this section.
T51N/R77W	24	All associated access road and utility corridor within the <b>NESE</b> of this section.

- b. A sage-grouse survey will be conducted by a biologist following the most current WGFD protocol. All survey results shall be submitted in writing to a Buffalo BLM biologist and approved prior to surface disturbing activities.
- c. Well metering, maintenance and other site visits will be restricted to 3 per week for the first six months, after the wells are completed. The company will be required to monitor frequency of site visits along with repairs made and problems identified resulting from the visits. The company will submit these reports to BLM at the end of every month. The BLM will use this data to determine the necessity of multiple monthly site visits.

- d. Maximum design speed on all operator-constructed and maintained roads (except county roads) will not exceed 25 miles per hour.

*Sharp-tailed Grouse*

The following conditions will minimize impacts to sharp-tail-grouse:

1. A survey is required for sharp-tailed grouse between April 1 and May 7, annually, within the project area for the life of the project and results shall be submitted to a BLM biologist.
  - a. If an active lek is identified during the survey, the 0.64 mile timing restriction (March 1-June 15) will be applied and surface disturbing activities will not be permitted until after the nesting season. The required sharp-tailed grouse survey will be conducted by a biologist following WGFD protocol. All survey results shall be submitted in writing to a Buffalo BLM biologist and approved prior to surface disturbing activities.
  - b. If surveys indicate that the identified lek is inactive during the current breeding season, surface disturbing activities may be permitted within the 0.5 mile buffer until the following breeding season (April 1).
  - c. Creation of raptor hunting perches will be avoided within 0.64 miles of documented sharp-tailed grouse lek sites. Perch inhibitors will be installed to deter avian predators from preying on grouse.

*Ute ladies-tresses orchid*

1. No surface disturbs is allowed at the 14-32-5176 well location prior to Lance Oil & Gas completing survey for Ute ladies-tresses orchid at the Christmas Spring #1 located SWSW Section 32, T51N/R76W.
  - a. If the survey confirms that Ute ladies'- tresses orchid is present, drilling and construction of the 14-32-5176 wells is not authorized.
  - b. If the survey confirms that suitable Ute ladies'- tresses orchid habitat is present, Lance Oil & Gas will submit a mitigation plan to ensure the habitat is not likely to be adversely affected prior to drilling and construction of the 14-32-5176 wells.

*Migratory Birds*

1. All pits associated with water treatment facilities containing more than 17,000 mg/L of sodium concentration will be designed to prevent access by migratory birds.

**Water Management**

1. In accordance with 43 CFR 3161.2, please provide a copy of the Spill Prevention and Control and Countermeasure (SPCC) Plan prepared for the Barber Creek Treatment Facility to the BLM prior to the addition of water produced in association with CBNG.
2. Reverse Osmosis and/or Rohm Haas water treatment technologies are not authorized at the Barber Creek West water treatment facility prior to the operator submitting Sundry Notice 3160-5 and approval for the appropriate water treatment technology. The Sundry will include a revised site facility diagram that ensures compliance with Onshore Orders #7.
3. The operator will sample the spring as listed below twice each year (spring and fall) for the duration of production to determine any changes in water quality or quantity. Analysis will follow the WYPDES Permit quality criteria suite. Copies of water quality and quantity data will be reported to the BLM BFO within 30 days of sampling. If it is determined that either are changing as a result of CBNG production in the area, additional mitigation may be required.

Spring	Location	Estimated Flow	Distance to Proposed Disturbance

Spring	Location	Estimated Flow	Distance to Proposed Disturbance
Christmas Spring #1	SWSW Sec. 32, T51N/R76W	1.0 gpm	0.04 mile from the 14-31-5176 location

- No surface disturbs is allowed at the **14-32-5176 well location** prior to Lance Oil & Gas submitting to BLM an amendment to the water management plan reporting flow measurement and water quality analysis at the Christmas Spring #1 located SWSW Section 32, T51N/R76W.

### Cultural

- To avoid disturbing a Cultural site, no oil and gas traffic will be permitted along the two track road running west and southwest from the main crown and ditch road (junction in T50N R76W, Section 6 SSWNENW). A sign prohibiting oil and gas traffic associated with the Augusta Zeta POD shall be placed at the junction of two-track road and the crown and ditch road.
- If any cultural values [sites, artifacts, human remains (Appendix L PRB FEIS)] are observed during operation of this lease/permit/right-of-way, they will be left intact and the Buffalo Field Manager notified. Further discovery procedures are explained in the *Standard COA* (General)(A)(1).

### III Standard Conditions of Approval

#### A. General

- If any cultural values [sites, artifacts, human remains (Appendix L FEIS)] are observed during operation of this lease/permit/right-of-way, they will be left intact and the Buffalo Field Manager notified. The authorized officer will conduct an evaluation of the cultural values to establish appropriate mitigation, salvage or treatment. The operator is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during construction, the operator is to immediately stop work that might further disturb such materials, and contact the authorized BLM officer (AO). Within five working days the AO will inform the operator as to:
  - whether the materials appear eligible for the National Register of Historic Places;
  - the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary); and,
  - a time-frame for the AO to complete an expedited review under 36 CFR 800.11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction measures.
- If paleontological resources, either large or conspicuous, and/or a significant scientific value are discovered during construction, the find will be reported to the Authorized Officer immediately. Construction will be suspended within 250 feet of said find. An evaluation of the paleontological discovery will be made by a BLM approved professional paleontologist within five (5) working days, weather permitting, to determine the appropriate action(s) to prevent the potential loss of any significant paleontological values. Operations within 250 feet of such a discovery will not be resumed until written authorization to proceed is issued by the Authorized Officer. The applicant will bear the cost of any required paleontological appraisals, surface collection of fossils, or salvage of any large conspicuous fossils of

significant scientific interest discovered during the operation.

3. The operator shall restrict travel on unimproved two-track roads during periods of inclement weather or spring thaw when the possibility exists for excessive surface resource damage (e.g., rutting in excess of 4-inches, travel outside two-track roadway, etc.).
4. The first producing well drilled to each targeted coal zone will be designated as the POD "Reference Well". Reference wells will not be required for PODs within a 6 mile radius of the first reference well designated by the operator, nor for co-mingled coal zones. The designated reference well must be equipped to be sampled at the well head. A reference well sample will be collected from the wellhead and submitted for analysis; using the list of analytes identified in WDEQ WYPDES Application for Permit to Surface Discharge Produced Water from CBM New Discharges, Renewals, or Major Modifications, within 30 to 60 days of initial water production. Results of the analysis will be submitted to the BFO-BLM authorized Officer as they become available.
5. By November 1 each year, companies will provide georeferenced spatial data depicting as-built locations of all facilities, wells, roads, pipelines, power lines, reservoirs, discharge points, and other related facilities to the BLM for all PODs where construction and development have been completed.
6. If any dead or injured threatened, endangered, proposed, or candidate species is located during construction or operation, the U.S. Fish and Wildlife Service's Wyoming Field Office (307-772-2374), their law enforcement office (307-261-6365), and the BLM Buffalo Field Office (307-684-1100) shall be notified within 24 hours. If any dead or injured sensitive species is located during construction or operation, the BLM Buffalo Field Office (307-684-1100) shall be notified within 24 hours.
7. Wildlife species are dynamic and new individuals may have moved into the Augusta Unit Zeta area after the initial wildlife surveys were completed. The Record of Decision for the PRB FEIS includes a programmatic mitigation measure that states, "The companies will conduct clearance surveys for threatened and endangered or other special-concern species at the optimum time". The measure requires companies to coordinate with the BLM before November 1 annually to review the potential for disturbance and to agree on inventory parameters. Should this project not be completed by January 15, and surface disturbance is planned for that year, a Lance Oil & Gas Company Inc. representative will coordinate with the BLM to discuss required surveys.
8. All other conservation measures and terms and conditions identified in the Powder River Basin Oil and Gas Project Biological Opinion (ES-6-WY-07-F012) shall be complied with.
9. If an undocumented raptor nest is located during project construction or operation, the Buffalo Field Office (307-684-1100) shall be notified within 24 hours.
10. All contractors will have a copy of the pod map and conditions of approval with them at all times.

## **B. Construction**

1. A pre-construction field meeting shall be conducted prior to beginning any dirt work approved under this POD. The operator shall contact the BLM Authorized Officer Jim Verplancke @ 307-684-1057 at least 4-days prior to beginning operations so that the meeting can be scheduled. The operator is responsible for having all contractors present (dirt contractors, drilling contractor, pipeline contractor, project oversight personnel, etc.) including the overall field operations superintendent, and for providing all contractors copies

of the approved POD, project map and BLM Conditions of Approval pertinent to the work that each will be doing.

2. The operator will limit vegetation removal and the degree of surface disturbance wherever possible. Where surface disturbance cannot be avoided, all practicable measures will be utilized to minimize erosion and stabilize disturbed soils.
3. Construction and drilling activity will not be conducted using frozen or saturated soil material during periods when watershed damage or excessive rutting is likely to occur.
4. Remove all available topsoil (depths vary from 4 inches on ridges to 12+ inches in bottoms) from constructed well locations including areas of cut and fill, and stockpile at the site. Topsoil will also be salvaged for use in reclamation on all other areas of surface disturbance (roads, pipelines, etc.). Clearly segregate topsoil from excess spoil material. Any topsoil stockpiled for one year or longer will be signed and stabilized with annual ryegrass or other suitable cover crop.
5. The operator will not push soil material and overburden over side slopes or into drainages. All soil material disturbed will be placed in an area where it can be retrieved without creating additional undue surface disturbance and where it does not impede watershed and drainage flows.
6. Construct the backslope no steeper than 1½:1, and construct the foreslope no steeper than 2:1, unless otherwise directed by the BLM Authorized Officer.
7. Maintain a minimum 20-foot undisturbed vegetative border between toe-of-fill of pad and/or pit areas and the edge of adjacent drainages, unless otherwise directed by the BLM Authorized Officer.
8. With the overall objective of minimizing surface disturbance and retaining land stability and productivity, the operator shall utilize equipment that is appropriate to the scope and scale of work being done for roads and well pads (utilize equipment no larger than needed for the job).
9. All overhead power lines shall be built to protect raptors, including bald eagles, from accidental electrocution using the most recent edition of “Suggested Practices for Raptor Protection” by the Avian Power Line Interaction Committee (2006 edition or most recent edition) and any additional practices provided by the FWS. It should be noted that raptor protection can be achieved through insulation and/or wire spacing and that there are multiple configurations capable of protecting raptors.
10. The operator shall utilize wheel trenchers or ditchers to construct all pipeline trenches, except where extreme topography or other environmental factors preclude their use.
11. Reserve pits will be adequately fenced during and after drilling operations until pit is reclaimed so as to effectively keep out wildlife and livestock. Adequate fencing, in lieu of more stringent requirements by the surface owner, is defined as follows:
  - Construction materials will consist of steel or wood posts. Three or four strand wire (smooth or barbed) fence or hog panel (16-foot length by 50-inch height) or plastic snow fence must be used with connectors such as fence staples, quick-connect clips, hog rings, hose clamps, twisted wire, etc. Electric fences will not be allowed.
  - Construction standards: Posts shall be firmly set in ground. If wire is used, it must be taut and evenly spaced, from ground level to top wire, to effectively keep out animals. Hog panels must be tied securely into posts and one another using fence staples, clamps, etc. Plastic snow fencing must be taut and sturdy. Fence must be at least 2-feet from edge of

- pit. 3 sides fenced before beginning drilling, the fourth side fenced immediately upon completion of drilling and prior to rig release. Fence must be left up and maintained in adequate condition until pit is closed.
12. The reserve pit will be oriented to prevent collection of surface runoff. After the drilling rig is removed, the operator may need to construct a trench on the uphill side of the reserve pit to divert surface drainage around it. If constructed, the trench will be left intact until the pit is closed.
  13. The reserve pit will be lined with an impermeable liner if permeable subsurface material is encountered. An impermeable liner is any liner having a permeability less than  $10^{-7}$  cm/sec. The liner will be installed so that it will not leak and will be chemically compatible with all substances that may be put in the pit. Liners made of any man-made synthetic material will be of sufficient strength and thickness to withstand normal installation and pit use. In gravelly or rocky soils, a suitable bedding material such as sand will be used prior to installing the liner.
  14. The reserve pit will be constructed so that at least half of its total volume is in solid cut material (below natural ground level).
  15. Culverts will be placed on channel bottoms on firm, uniform beds, which have been shaped to accept them, and aligned parallel to the channel to minimize erosion. Backfill will be thoroughly compacted.
  16. The minimum diameter for culverts will be 18 inches. However, all culverts will be appropriately sized in accordance with standards in BLM Manual 9113.
  17. Construction and other project-related traffic will be restricted to approved routes. Cross-country vehicle travel will not be allowed.
  18. Maximum design speed on all operator-constructed and maintained roads will not exceed 25 miles per hour.
  19. Pipeline construction shall not block nor change the natural course of any drainage. Pipelines shall cross perpendicular to drainages. Pipelines shall not be run parallel in drainage bottoms. Suspended pipelines shall provide adequate clearance for maximum runoff.
  20. Pipeline trenches shall be compacted during backfilling. Pipeline trenches shall be routinely inspected and maintained to ensure proper settling, stabilization and reclamation.
  21. During construction, emissions of particulate matter from well pad and road construction would be minimized by application of water or other non-saline dust suppressants with at least 50 percent control efficiency. Dust inhibitors (surfacing materials, non-saline dust suppressants, and water) will be used as necessary on unpaved roads that present a fugitive dust problem. The use of chemical dust suppressants on public surface will require prior approval from the BLM Authorized Officer.
  22. Operators are required to obtain a National Pollution Discharge Elimination System (NPDES) Storm Water Permit from the Wyoming DEQ for any projects that disturb five or more acres (changing to one acre in March 2005). This general construction storm water permit must be obtained from WDEQ prior to any surface disturbing activities and can be obtained by following directions on the WDEQ website at <http://deq.state.wy.us>. Further information can be obtained by contacting Barb Sahl at (307) 777-7570.
  23. The operator shall submit a Sundry Notice (Form 3160-5) to BLM for approval prior to construction of any new surface disturbing activities that are not specifically addressed in the approved APD or POD Surface Use Plan.

24. Weed educational material will be reviewed with operators during pre-construction on-site meetings with operators, subcontractors, and landowners and will also be attached to approved APDs and PODs.
25. Companies will contact the counties to pursue development of maintenance agreements to ensure county roads are adequately maintained for the projected increase in use.

### **C. Operations/Maintenance**

1. The operator shall complete coal bed natural gas wells (case, cement and under ream) as soon as possible, but no later than 30 days after drilling operations, unless an extension is given by the BLM Authorized Officer.
2. If in the process of air drilling the wells there is a need to utilize mud, all circulating fluids will be contained either in an approved pit or in an aboveground containment tank. The pit or containment tank will be large enough to safely contain the capacity of all expected fluids without danger of overflow. Fluid and cuttings will not be squeezed out of the pit, and the pit will be reclaimed in an expedient manner.
3. Confine all equipment and vehicles to the access road(s), pad(s), and area(s) specified in the approved APD or POD.
4. All waste, other than human waste and drilling fluids, will be contained in a portable trash cage. This waste will be transported to a State approved waste disposal site immediately upon completion of drilling operations. No trash or empty barrels will be placed in the reserve pit or buried on location. All state and local laws and regulations pertaining to disposal of human and solid waste will be complied with.
5. Rat and mouse holes shall be filled and compacted from the bottom to the top immediately upon release of the drilling rig from the location.
6. The operator will be responsible for prevention and control of noxious weeds and weeds of concern on all areas of surface disturbance associated with this project (well locations, roads, water management facilities, etc.) Use of pesticides shall comply with the applicable Federal and State laws. Pesticides shall be used only in accordance with their registered uses and within limitations imposed by the Secretary of Interior. Prior to the use of pesticides on public land, the holder shall obtain from the BLM authorized officer written approval of a plan showing the type and quantity of material to be used, pest(s) to be controlled, method of application, location of storage and disposal of containers, and any other information deemed necessary by the authorized officer to such use.
7. Sewage shall be placed in a self-contained, chemically treated porta-potty on location.
8. The operator and their contractors shall ensure that all use, production, storage, transport and disposal of hazardous and extremely hazardous materials associated with the drilling, completion and production of these wells will be in accordance with all applicable existing or hereafter promulgated federal, state and local government rules, regulations and guidelines. All project-related activities involving hazardous materials will be conducted in a manner to minimize potential environmental impacts. In accordance with OSHA requirements, a file will be maintained onsite containing current Material Safety Data Sheets (MSDS) for all chemicals, compounds and/or substances which are used in the course of construction, drilling, completion and production operations.
9. Produced fluids shall be put in test tanks on location during completion work. Produced water will be put in the reserve pit during completion work per Onshore Order #7.
10. The only fluids/waste materials which are authorized to go into the reserve pit are RCRA

exempt exploration and production wastes. These include:

- drilling muds & cuttings
- rigwash
- excess cement and certain completion & stimulation fluids defined by EPA as exempt

It does not include drilling rig waste, such as:

- spent hydraulic fluids
- used engine oil
- used oil filter
- empty cement, drilling mud, or other product sacks
- empty paint, pipe dope, chemical or other product containers
- excess chemicals or chemical rinsate

Any evidence of non-exempt wastes being put into the reserve pit may result in the BLM Authorized Officer requiring specific testing and closure requirements.

11. Reserve pits will be closed as soon as possible, but no later than 90 days from time of drilling/well completion, unless the BLM Authorized Officer gives an extension. Squeezing of pit fluids and cuttings is prohibited. Pits must be dry of fluids or they must be removed via vac-truck or other environmentally acceptable method prior to backfilling, re-contouring and replacement of topsoil. Mud and cuttings left in pit must be buried at least 3-feet below re-contoured grade. The operator will be responsible for re-contouring any subsidence areas that develop from closing a pit before it is sufficiently dry.
12. Operators are advised that prior to installation of any oil and gas well production equipment which has the potential to emit air contaminants, the owner or operator of the equipment must notify the Wyoming Department of Environmental Quality, Air Quality Division (phone 307-777-7391) to determine permit requirements. Examples of pertinent well production equipment include fuel-fired equipment (e.g., diesel generators), separators, storage tanks, engines and dehydrators.
13. If this well is drilled during the fire season (June-October), the operator shall institute all necessary precautions to ensure that fire hazard is minimized, including but not limited to mowing vegetation on the access route(s) and well location(s), keeping fire fighting equipment readily available when drilling, etc.

#### **D. Dry Hole/Reclamation**

1. All disturbed lands associated with this project, including the pipelines, access roads, water management facilities, etc will be expediently reclaimed and reseeded in accordance with the surface use plan and any pertinent site-specific COAs.
2. Disturbed lands will be re-contoured back to conform with existing undisturbed topography. No depressions will be left that trap water or form ponds.
3. The fluids and mud must be dry in the reserve pit before re-contouring pit area. The operator will be responsible for re-contouring of any subsidence areas that develop from closing a pit before it is completely dry. The plastic pit liner (if any) will be cut off below grade and properly disposed of at a state authorized landfill before beginning to re-contour the site.
4. Before the location has been reshaped and prior to redistributing the topsoil, the operator will rip or scarify the drilling platform and access road on the contour, to a depth of at least 12 inches. The rippers are to be no farther than 24 inches apart.

5. Distribute the topsoil evenly over the entire location and other disturbed areas. Prepare the seedbed by disking to a depth of 4-to-6 inches following the contour.
6. Phased reclamation plans will be submitted to BLM for approval prior to individual POD facility abandonment via a Notice of Intent (NOI) Sundry Notice. Individual facilities, such as well locations, pipelines, discharge points, impoundments, etc. need to be addressed in these plans as they are no longer needed. Individual items that will need to be addressed in reclamation plans include:
  - Pit closure (Close ASAP after suitably dry, but no later than 90 days from time of drilling unless an extension is given by BLM Authorized Officer.) BLM may require closure prior to 90 days in some cases due to land use or environmental concerns.
  - Configuration of reshaped topography, drainage systems, and other surface manipulations
  - Waste disposal
  - Revegetation methods, including specific seed mix (pounds pure live seed/acre) and soil treatments (seedbed preparation, fertilization, mulching, etc.). On private surface, the landowner should be consulted for the specific seed mix.
  - Other practices that will be used to reclaim and stabilize all disturbed areas, such as water bars, erosion fabric, hydro-mulching, etc.
  - An estimate of the timetables for beginning and completing various reclamation operations relative to weather and local land uses.
  - Methods and measures that will be used to control noxious weeds, addressing both ingress and egress to the individual well or POD.
  - Decommissioning/removal of all surface facilities
  - Closure and reclamation of areas utilized or impacted by produced CBM water, including discharge points, reservoirs, off-channel pits, land application areas, livestock/wildlife watering facilities, surface discharge stream channels, etc
7. BLM will not release the performance bond until all disturbed areas associated with the APD/POD have been successfully revegetated (evaluation will be made after the second complete growing season) and has met all other reclamation goals of the surface owner and surface management agency.
8. A Notice of Intent to Abandon and a Subsequent Report of Abandonment must be submitted for abandonment approval.
9. For performance bond release approval, a Final Abandonment Notice (with a surface owner release letter on split-estate) must be submitted prior to a final abandonment evaluation by BLM.
10. Soil fertility testing and the addition of soil amendments may be required to stabilize some disturbed lands.
11. Any mulch utilized for reclamation needs to be certified weed free.
12. Waterbars are to be constructed at least one (1) foot deep, on the contour with approximately two (2) feet of drop per 100 feet of waterbar to ensure drainage, and extended into established vegetation. All waterbars are to be constructed with the berm on the downhill side to prevent the soft material from silting in the trench. The initial waterbar should be constructed at the top of the backslope. Subsequent waterbars should follow the following general spacing guidelines:

Slope (percent)	Spacing Interval (feet)
< 2	200
2 - 4	100
4 - 5	75
> 5	50

### **E. Producing Well**

1. Landscape those areas not required for production to the surrounding topography as soon as possible. The fluids and mud must be dry in the reserve pit before re-contouring pit area. The operator will be responsible for re-contouring and reseeded of any subsidence areas that develop from closing a pit before it is completely dry.
2. Reduce the backslope to 2:1 and the foreslope to 3:1, unless otherwise directed by the BLM Authorized Officer. Reduce slopes by pulling fill material up from foreslope into the toe of cut slopes.
3. Production facilities (including dikes) must be placed on the cut portion of the location and a minimum of 15 feet from the toe of the back cut unless otherwise approved by the BLM Authorized Officer.
4. Any spilled or leaked oil, produced water or treatment chemicals must be reported in accordance with NTL-3A and immediately cleaned up in accordance with BLM requirements. This includes clean-up and proper disposition of soils contaminated as a result of such spills/leaks.
5. Distribute stockpiled topsoil evenly over those areas not required for production and reseed as recommended.
6. Upgrade and maintain access roads and drainage control (e.g., culverts, drainage dips, ditching, crowning, surfacing, etc.) as necessary and as directed by the BLM Authorized Officer to prevent soil erosion and accommodate safe, environmentally-sound access.
7. Prior to construction of production facilities not specifically addressed in the APD/POD, the operator shall submit a Sundry Notice to the BLM Authorized Officer for approval.
8. If not already required prior to constructing and drilling the well location, the operator shall immediately upgrade the entire access road to BLM standards (including topsoiling, crowning, ditching, drainage culverts, surfacing, etc.) to ensure safe, environmentally-sound, year-round access. This requirement does not supercede or apply where specific road requirements are addressed in the APD/POD surface use plan (e.g., two track road, spot upgrade, etc.)
9. Waterbars shall be installed on all reclaimed pipeline corridors per the guidelines in D #12.

**Attachment 1: Changes as a result of the on-sites**

Changes Agreed to at the Onsite		
	Well #	Changes
1	14-4BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope for drainage. The wells were moved approximately 50' east & 90 degrees to avoid losing fill down the drainage. The access was moved to the sandy ridge line and will begin as designed beginning at the 11-9 location. Upgrade access to improved template with 45' clearing & 50' working width and 12' running surface. Expedient reclamation applies to both the well pad and the access road.
2	21-4BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope for drainage. The wells were moved approximately 150' west to 11-4 location. The approach for the access was moved 150' north to reduce the vertical slope and provide for better sight distance. The entire access route will be engineered. Expedient reclamation applies to both the well pad and the access road design.
3	31-4BG/WA	LOG agreed to move the wells about 10' east withdrawing the pad for a rig slot location. Clearing will be allowed on the slope above the pad. Improved template access with 45' clearing & 50' working width.
4	33-4BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope for drainage. Expedient reclamation applies to the well pad. Access upgraded to improved template 35' overall width.
5	34-4BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope for drainage. Expedient reclamation applies to both the well pad and the access road.
6	41-4BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope for drainage. Wells move about 300' south to avoid elk habitat. Improved template access with 40' clearing.
7	43-4BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope for drainage. Topsoil storage at the SW corner of the pad. Approach to the pad changed to the east end of the pad and KTI needs to include the approach in the pad design. Primitive access & corridor width 35' overall. The landowner requested to add a stock tank on the west end of the pad.
8	11-5BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope for drainage. The wells were moved about 200' south. The pad will increase the turning radius and sight distance of the existing O & G access road LOG constructed for the Fee development. The segment of Road E from its start to the 11-5 locations is withdrawn. LOG agreed to extend Road E starting at the 11-5 location and continue on to the 21-5 location. Excess spoil from the 11-5 pad will be used for Road E fill.
9	13-5BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope for drainage. Wells move about 125' north of the access road with a drive through location. Improved template access with 45' clearing & 50' working width. Expedient reclamation applies to both the well pad and the access road.
10	21-5BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope for drainage. The wells were moved about 250' NW at land owners request. BLM supports the move; it reduces surface disturbance and affects less elk habitat. Road E will start at the 11-5 location and continue on to the 21-5 location. Excess spoil from the 11-5 pad will be used for Road E fill. The alignment of the road is shifted to the east side of the ridge avoiding 25 % slopes.

		Changes Agreed to at the Onsite
	Well #	Changes
11	12-6BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope to the NW draining into grassy swale. Access upgraded to improved template with 35' clearing & 45' working width and 12' running surface. The access was realigned to avoid an identified cultural site. Expedient reclamation applies to both the well pad and the access road.
12	14-6BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope for drainage. Access upgraded to improved template with 35' clearing & 45' working width and 12' running surface. The engineered Road 14-6 modified to begin 500' north of the hill and then continue to the well location. Expedient reclamation applies to both the well pad and the access road. LOG will sign the existing primitive road closed at the west end of the pad where BLM surface begins.
13	43-6BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope for drainage. Access upgraded to improved template with 35' clearing & 45' working width and 12' running surface. Expedient reclamation applies to both the well pad and the access road.
14	11-9BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope for drainage. LOG will realign Road B2 as per Landowner request. The start of this well access moved north as per BLM recommendation to avoid good sage brush habitat. LOG requested to upgrade the access to template, BLM agreed. Improved template access with 45' clearing & 50' working width.
15	12-9BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope for drainage. Primitive access & corridor width 35' overall. The access was realigned to follow the existing primitive road as per the landowner's request. BLM did not support the realignment and made recommendations to avoid the ridge top. Large Junipers at the south and west ends of the pad will be avoided as per the landowner's request.
16	32-19BG/WA	Pad design withdrawn as per BLM recommendation. The wells will be shifted 20 feet east to accommodate no pad construction; this may be the 42-19 spot. Access upgraded to improved template with 45' overall width and 12' running surface. Widen road to 24' at the intersection of the road (power drop location). Add turnout at high spot along access. Minimal rig leveling will be allowed. Expedient reclamation applies to both the well location and the access road. The landowner is allowing 150' X 200' mowing.
17	34-19BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope for drainage. Road M1 template modified at St 1+00 adding a type 2 culvert at head cut. Road M2 template modified to add type 2 culverts at St 0+00 and 1+16 and wing ditch or cross drain at St 1+00. Road M2 road design needs centerline realigned across the existing stock reservoir dam and shift the alignment north on the curve west of the dam to reduce the turning radius. Road M3-2 design modified to reduce the maximum below 15% beginning at St 1+00 to St 2+50. Excess spoil to be used to widen the existing dam and re-enforce the bypass spillway with gabions and riprap.
18	41-19BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope for drainage. Access upgraded to improved template with 45' overall width and 12' running surface. Utilize 2:1 ditch slopes to minimize disturbance width. Widen road to 24' at the intersection of the road (power drop location). Expedient reclamation applies to both the well pad and the access road.

Changes Agreed to at the Onsite		
	Well #	Changes
19	43-19BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope for drainage. Access upgraded to improved template with 45' overall width and 12' running surface. Utilize 2:1 ditch slopes to minimize disturbance width. Expedient reclamation applies to both the well pad and the access road.
20	12-20BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope for drainage. Improved template access with 45' clearing & 50' working width. Due to poor reclamation potential to the proposed access, it was rerouted to avoid the sandy ridge top. The access will begin at the proposed power drop location (not at the 23-20 location) and follow the contour to the 12-20 location
21	14-20BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope for drainage. Fence to be removed during drilling and replace with interim reclamation. Avoid disturbing the rock outcropping along the access route. Improved template access with 45' clearing & 50' working width.
22	21-20BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope for drainage. Improved template access with 45' clearing & 50' working width. The utilities will require a bench cut that will likely exceed 50' in area. LOG will identify the road stations on the line diagram in the road plans. LOG requested that the utilities be taken 300' beyond the well location as they have further development planned to the north in section 17; BLM agreed. Expedient reclamation applies to both the well pad and the access road.
23	23-20BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope for drainage. Not a drive through pad; access will not continue from the 23-20 to the 12-20. Improved template access north of intersection with 45' clearing & 50' working width and 35' overall south of intersection.
24	12-21BG/WA	LOG agreed to withdraw the pad design if allowed minimal rig leveling; 10' X 10' with no more than 2' of cut. BLM will allow 35' mowing north of the well stakes and as much as is needed south of the well stakes. The wells were shifted 20'-30' north to accommodate increased work space. Improved template access & corridor width will be 35' overall with surfacing.
25	21-21BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope for drainage. Improved template access & corridor width will be 35' overall with surfacing.
26	32-21BG/WA	BLM recommended that the pad size be reduced to 175 X 200 with a 1% slope for drainage. LOG agreed and preferred to have the pad in sloping to minimize erosion. Template portion of the access will be 45' clearing with 50' working.
27	41-21BG/WA	BLM recommended that the pad size be reduced to 150 X 200 with a 1% slope for drainage. LOG agreed and preferred to have the pad in sloping to minimize erosion. Template portion of the access will be 45' clearing with 50' working.
28	43-21BG/WA	LOG agreed to reduce the pad to 170 X 200. Short Template road will be 50' clearing/60' working. The approach will be 24' wide by 50' long to provide safe ingress/egress with limited sight distance from the existing access road. A truck pullout will be constructed directly across the existing road from this approach to increase safety. Sight distance on existing main access road needs to be improved. Currently it is 90 yards from crest of main road to approach turn. Road will be signed to warn drivers of intersection. Main road will be widened additional 12' for approximately 200' downhill and 100' uphill of the intersection.

Changes Agreed to at the Onsite		
	Well #	Changes
29	44-21BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope for drainage. Primitive access & corridor width 35' overall.
30	12-28BG/WA	LOG agreed to redesign pad with 1% slope for drainage. The approach will be 24' wide by 50' long. Expedient reclamation applies to the well pad.
31	22-28BG/WA	Wells were moved about 90' north to avoid cutting over the new water pipeline.
32	12-29BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope for drainage. Improved template access with 45' clearing & 50' working width.
33	21-29BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope for drainage. Upgrade entire access to improved template access with 45' clearing & 50' working width.
34	23-29BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope for drainage. Primitive access & corridor width 35' overall with surfacing. The access approach off the existing road will be 20' wide X 50' long running surface due to limited sight distance.
35	24-29BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope for drainage. Primitive access & corridor width 35' overall. Temporary access for drilling as well as the utility corridor will follow the toe of slope of the existing compressor station pad and will be reclaimed/seeded with the fill slope of the compressor pad. The well access for production will be primitive established from the north end of the compressor pad. Surfacing will be placed at the beginning of the access where it ties into the compressor pad and at the approach to the well pad.
36	23-30BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope for drainage. Upgrade entire access to improved template access with 45' clearing & 50' working width. Realigned access to intersect ridge and come more directly down to well site.
37	34-30BG/WA	LOG agreed to withdraw the pad design. BLM agreed to allow construction of a turn-around at the cut slope of this existing well pad. LOG requested that the BG well be moved 30' east (the 44-30 location) to allow more work space and avoid the P & A well marker. Upgrade the existing primitive access to improved template with 12' running surface and 35' clearing & 45' working width. The fill from the road construction will be placed on the east side of ridge.
38	41-30BG/WA	LOG agreed to withdraw the pad design if allowed minimal rig leveling. Upgrade the access to improved template with 12' running surface and 35' clearing & 45' working width. Utilize 2:1 ditch slopes to minimize disturbance width. Access road was realigned moved up the hill away from headcut with culvert discharging onto grass instead of into headcut.
39	43-30BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope for drainage. This will be a drive through pad.

Changes Agreed to at the Onsite		
	Well #	Changes
40	12-31BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope for drainage. Drain the pad to the north and the south. Wells moved about 50' north to reduce the cut on the south end of the pad. The road alignment to follow the ridge as requested by the landowner. Upgrade entire access to improved template access with 45' clearing & 50' working width. Expedient reclamation applies to both the well pad and the access road.
41	14-31BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope for drainage. Wells moved about 50' SW to avoid and pad cuts over the water pipeline. Upgrade entire access to improved template access with 45' clearing & 50' working width. LOG changed the access alignment and will not be using the water pipeline disturbance.
42	21-31BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope for drainage. Must avoid casting file over east edge of the pad. Improved template access segment with 45' clearing & 50' working width. The access road is to avoid the rock-outcrop hill. Expedient reclamation applies to both the well pad and the access road.
43	23-31BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope for drainage. This will be a drive through pad and the beginning of 21-31 well access. Improved template access segment with 45' clearing & 50' working width.
44	32-31BG/WA	LOG agreed to redesign the pad with 1% slope for drainage. NW end of the pad will avoid large juniper tree and drainage providing a 20' vegetative buffer. Expedient reclamation applies to both the well pad and the access road.
45	33-31BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope for drainage. Road E was withdrawn and the existing primitive road re-contoured and reclaimed. Road F was realigned and extended to the 33-31 location. Road F upgraded to engineered from St. 0+00 to the 33-31 location
46	41-31BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope for drainage. The fence will have to be taken down for pad construction and replaced by LOG. Fence crossing will be a cattle guard/swing gate comb. Expedient reclamation applies to the pad and Road J designs.
47	43-31BG/WA	LOG agreed to move the wells about 150' south withdrawing the pad for a rig slot location. LOG agreed to fully reclaim the existing primitive access road located on BLM surface that runs east west from the SESE to the SWSE section 31 T51N/R76W by the following means: ripping to 18-24 inches or to a depth 4 inches below the compacted layer; Seed with the appropriate BLM approved seed mix for the soil type; sign and close the road.
48	12-32BG/WA	LOG agreed to reduce the pad to 125' X 250' and redesign it with 1% slope for drainage. The pits will be <50% in the fill but LOG agrees to use pit liners.
49	14-32BG/WA	LOG agreed to reduce the pad and redesign with 1% slope for drainage; this pad design will be an irregular shape that may exceed the 150' X 200' foot print. Topsoil from the pad will be stored at the north end of the location. LOG agreed to withdraw the 14-32 engineered road design and change to improved template access with 45' clearing & 50' working width. A 24' X 50' approach will be allowed at the start of this well access.

		Changes Agreed to at the Onsite
	Well #	Changes
50	21-32BG/WA	LOG agreed to withdraw the pad design if allowed a 30' X 120' rig slot with ramps on both ends for a drive through slot. The wells were moved about 50' east to allow the smaller foot print. The landowner requested a stock tank at this location.
51	23-32BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope for drainage. The west end of the pad will have a ramped approach to the pad. Pad will avoid cutting over the new water pipeline. Moved wells about 50' north.
52	31-32BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope for drainage. Withdraw the engineered road design for Road L and change to improved template access established over the reclaimed water pipeline disturbance; 35' clearing & 45' working width. The 31-32A culvert was changed to a type 2 culvert with armoring.
53	32-32BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope for drainage. Improved template access segment with 35' clearing & 45' working width. Wells moved approximately 300' NE to reduce impacts to wildlife. The 31-32C culvert was changed to a type 2 culvert with armoring.
54	34-32BG/WA	LOG agreed to redesign pad with 1% slope for drainage. BLM requires culverts added to main road at the well location.
55	44-32BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope for drainage. Withdraw the engineered road design and change to improved template access with 45' clearing & 50' working width; A culvert is needed. The new road will start at SE corner of the 31-5 Fee well pad and follow an abandoned/reclaimed well access road.
56	13-33BG/WA	The wells were moved approximately 600' northwest to consolidate disturbance with the proposed utility corridor. Primitive access to be established on the 50' utility corridor disturbance. LOG will sign both ends of the utility corridor "No through traffic". The pad design was withdrawn. Landowner requested a stock tank added at east end of location.
57	23-33BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope to drain it to the north end of the pad. The proposed template road was rerouted to come into the well location from the south; 12' running surface and 35' overall width. Signs will be installed along Kinney Divide road 300' either side of the 23-33 access approach with "Heavy Truck Traffic Entering Road".
58	34-33BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope for drainage. The wells were moved about 110' west to minimize disturbance to the 24-33 location. The access will start at the 23-33 well access off Kinney Divide road and travel south hooking around to the south end of the pad. This is the request of the landowner and was agreed by BLM & LOG as the best route.
59	44-33BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope for drainage. Primitive access & corridor width 35' overall.
60	12-34BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope for drainage. Primitive access & corridor width 35' overall.
61	14-34BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope for drainage. Improved template access with 45' clearing & 50' working width.

Changes Agreed to at the Onsite		
	Well #	Changes
62	22-34BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope for drainage. The wells were moved 10 feet West to avoid the 25% slope where the pits were staked. The well access will be upgraded and included in the Road J re-design and any excess spoil material from the well pad will be used as fill for the road. Expedient reclamation plan applies to the pad and Road J designs.
63	23-34BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope for drainage. Drive through pad location. Primitive access of 35' overall width. The pad was shifted uphill to the existing road; the road be rerouted to the west edge of the pad to increase the turning radius.
64	32-34BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope for drainage. Road J re-design will incorporate any excess spoil material from the 22-34 well pad to be used as fill for the road. The start of Road J was realigned and straightened. Expedient reclamation applies to Road J.
65	34-34BG/WA	LOG agreed to withdraw the pad design. The access follows the reclaimed road alignment, the Road 34-34engineered road design was withdrawn for an improved template. Improved template access segment with 45' clearing & 50' working width.
66	41-34BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope for drainage. The pad corner must provide for a 20' vegetative buffer. Head cuts and erosion features at the pad corners will be armored. Road 41-34 design was realigned with the access beginning at the 11-35 location and including the 11-35 road design by KLJ. Expedient reclamation applies to the pad and Road designs.
67	42-34BG/WA	LOG agreed to reduce the pad to 150' X 200' with 1% slope for drainage. Avoid the headcut at east end of pad and provide 20' vegetative buffer. Improved template access with 45' clearing & 50' working width. LOG agreed to bury the last 1,200 feet of GWE utilities to the well location within the road bed in order to minimize the width and avoid bench cutting into the steep embankment as per landowner & BLM request.
68	Slash Piles	No slash from juniper/ponderosa pine trees removed during construction will be stored on BLM surface. Slash from BLM surface will be either chipped in place or removed. LOG plans to store slash on private surface for the purpose of salvage, chipping or burning. Slash will be stored at well locations and will be included on the project maps.