

State of Colorado
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 (303)894-2100 Fax:(303)894-2109



FOR OGCC USE ONLY

EARTHEN PIT REPORT/PERMIT

This form is to be used for both reporting and permitting pits. Rule 903 describes when a Permit with prior approval, or a Report within 30 days, is required for pits. Submit required attachments and forms.

Complete the
Attachment Checklist

FORM SUBMITTED FOR:

☐ Pit Report

☒ Pit Permit

OGCC Operator Number: 28600

Name of Operator: EXXON MOBIL CORPORATION

Address: P O BOX 4358

City: HOUSTON State: TX Zip: 77210

Contact Name and Telephone:

ROY SPRINGFIELD

No: 281-654-1932

Fax:

	Oper	OGCC
Detailed Site Plan	✓	
Topo Map w/ Pit Location	✓	
Water Analysis (Form 25)		
Source Wells (Form 26)		
Pit Design/Plan & Cross Sect	✓	
Design Calculations		
Sensitive Area Determ.		
Mud Program		
Form 2A	✓	

API Number (of associated well): 05-103-11609

OGCC Facility ID (of other associated facility): NORTH PICEANCE UNIT 197-12A1

Pit Location (QtrQtr, Sec, Twp, Rng, Meridian): NWSE, 12, 1S, 97W, 6

Latitude: 39.978689

Longitude: 108.229045

County: RIO BLANCO

Pit Use: ☐ Production ☐ Drilling (Attach mud program) ☒ Special Purpose (Describe Use): FLARE

Pit Type: ☐ Lined ☒ Unlined Surface Discharge Permit: ☐ Yes ☐ No

Offsite disposal of pit contents: ☐ Injection ☐ Commercial Pit/Facility Name: Pit/Facility No:

Attach Form 26 to identify Source Wells and Form 25 to provide Produced Water Analysis results.

Existing Site Conditions

Is the location in a "Sensitive Area?" ☐ Yes ☒ No Attach data used for determination.

Distance (in feet) to nearest surface water: 3588 ground water: 53 water wells: 4834

LAND USE (or attach copy of Form 2A if previously submitted for associated well) Select one which best describes land use:

Crop Land: ☐ Irrigated ☐ Dry Land ☐ Improved Pasture ☐ Hay Meadow ☐ CRP

Non-Crop Land: ☒ Rangeland ☐ Timber ☐ Recreational ☒ Other (describe): GRAZING

Subdivided: ☐ Industrial ☐ Commercial ☐ Residential

SOILS (or attach copy of Form 2A if previously submitted for associated well)

Soil map units form USNRCS survey: Sheet No: SEE ATTACHED Soil Complex/Series No:

Soils Series Name: Horizon thickness (in inches): A: ; B: ; C:

Soils Series Name: Horizon thickness (in inches): A: ; B: ; C:

Attach detailed site plan and topo map with pit location.

Pit Design and Construction

Size of pit (feet): Length: 20 Width: 12 Depth: 6

Calculated pit volume (bbls): NA Daily inflow rate (bbls/day): NA

Daily disposal rates (attach calculations): Evaporation: NA bbls/day Percolation: NA bbls/day

Type of liner material: NA Thickness: NA

Attach description of proposed design and construction (include sketches and calculations).

Method of treatment of produced water prior to discharge into pit (separator, heater treater, other): NA

Is pit fenced? ☐ Yes ☒ No Is pit netted? ☐ Yes ☒ No

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct, and complete.

Print Name: ROY L SPRINGFIELD

Signed:

Title: REGULATORY SPECIALIST

Date: 08/23/2010

OGCC Approved: Title: Date:

CONDITIONS OF APPROVAL, IF ANY:

FACILITY NUMBER:

FORM

2A

Rev
04/01

State of Colorado Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80205 Phone: (303) 894-2100 Fax: (303) 894-2109



DE ET OE ES

Document Number:

400086733

Oil and Gas Location Assessment

☒ New Location ☐ Amend Existing Location Location#: _____

Submit original plus one copy. This form is to be submitted to the COGCC prior to any ground disturbance activity associated with oil and gas development operations. This Assessment may be approved as a stand alone application or submitted as an informational report accompanying an Application for Permit-To-Drill, Form 2. Approval of this Assessment will allow for the construction of the below specified location; however, it does not supersede any land use rules applied by the local land use authority. This form may serve as notice to land owners and other interested parties, please see the COGCC web site at <http://colorado.gov/cogcc/> for all accompanying information pertinent to this Oil and Gas Location Assessment.

Location ID:

Expiration Date:

☐ This location assessment is included as part of a permit application.

1. CONSULTATION

- ☐ This location is included in a Comprehensive Drilling Plan. CDP # _____
- ☒ This location is in a sensitive wildlife habitat area.
- ☐ This location is in a wildlife restricted surface occupancy area.
- ☐ This location includes a Rule 306.d.(1)A.ii. variance request.

2. Operator

Operator Number: 28600

Name: EXXON MOBIL CORPORATION

Address: P O BOX 4358

City: HOUSTON State: TX Zip: 77210-4358

3. Contact Information

Name: Roy Springfield

Phone: (281) 654-1932

Fax: ()

email: roy.l.springfield@exxonmobil.com

4. Location Identification:

Name: NORTH PICEANCE UNIT Number: 197-12A1

County: RIO BLANCO

Quarter: NWSE Section: 12 Township: 1S Range: 97W Meridian: 6 Ground Elevation: 6456

Define a single point as a location reference for the facility location. This point should be used as the point of measurement in the drawings to be submitted with this application. When the location is to be used as a well site then the point shall be a well location.

Footage at surface: 2430 feet, from North or South section line: FSL and 2785 feet, from East or West section line: FEL

Latitude: 39.978689 Longitude: -108.229045 PDOP Reading: 2.4 Date of Measurement: 05/04/2009

Instrument Operator's Name: D. PETTY

5. Facilities (Indicate the number of each type of oil and gas facility planned on location):

Special Purpose Pits: <input type="text" value="1"/>	Drilling Pits: <input type="text" value="2"/>	Wells: <input type="text" value="1"/>	Production Pits: <input type="text"/>	Dehydrator Units: <input type="text"/>
Condensate Tanks: <input type="text"/>	Water Tanks: <input type="text"/>	Separators: <input type="text"/>	Electric Motors: <input type="text"/>	Multi-Well Pits: <input type="text"/>
Gas or Diesel Motors: <input type="text"/>	Cavity Pumps: <input type="text"/>	LACT Unit: <input type="text"/>	Pump Jacks: <input type="text"/>	Pigging Station: <input type="text"/>
Electric Generators: <input type="text"/>	Gas Pipeline: <input type="text"/>	Oil Pipeline: <input type="text"/>	Water Pipeline: <input type="text"/>	Flare: <input type="text"/>
Gas Compressors: <input type="text"/>	VOC Combustor: <input type="text"/>	Oil Tanks: <input type="text"/>	Fuel Tanks: <input type="text"/>	

Other: _____

6. Construction:

Date planned to commence construction: 03/07/2012 Size of disturbed area during construction in acres: 6.30
Estimated date that interim reclamation will begin: 08/13/2014 Size of location after interim reclamation in acres: 4.00
Estimated post-construction ground elevation: 6455 Will a closed loop system be used for drilling fluids: Yes ☐
Will salt sections be encountered during drilling: Yes ☐ No ☒ Is H2S anticipated? Yes ☐ No ☒
Will salt (>15,000 ppm TDS Cl) or oil based muds be used: Yes ☒ No ☐
Mud disposal: Offsite ☐ Onsite ☒ Method: Land Farming ☐ Land Spreading ☐ Disposal Facility ☐
Other: BURIAL

7. Surface Owner:

Name: BUREAU OF LAND MANAGEMENT Phone: 970) 878-3800
Address: 220 E. Market Street Fax: _____
Address: _____ Email: _____
City: MEEKER State: CO Zip: 81641 Date of Rule 306 surface owner consultation: 11/12/2008
Surface Owner: ☐ Fee ☐ State ☒ Federal ☐ Indian
Mineral Owner: ☐ Fee ☐ State ☒ Federal ☐ Indian
The surface owner is: ☒ the mineral owner ☒ committed to an oil and gas lease
☐ is the executer of the oil and gas lease ☐ the applicant
The right to construct the location is granted by: ☒ oil and gas lease ☐ Surface Use Agreement ☐ Right of Way
☐ applicant is owner
Surface damage assurance if no agreement is in place: ☐ \$2000 ☐ \$5000 ☐ Blanket Surety ID _____

8. Reclamation Financial Assurance:

☐ Well Surety ID: _____ ☐ Gas Facility Surety ID: _____ ☐ Waste Mgmt. Surety ID: _____

9. Cultural:

Is the location in a high density area (Rule 603.b.): Yes ☐ No ☒
Distance, in feet, to nearest building: 4393, public road: 405, above ground utilit: 662
, railroad: 15840, property line: 2430

10. Current Land Use (Check all that apply):

Crop Land: ☐ Irrigated ☐ Dry land ☐ Improved Pasture ☐ Hay Meadow ☐ CRP
Non-Crop Land: ☒ Rangeland ☐ Timber ☐ Recreational ☒ Other (describe): Grazing
Subdivided: ☐ Industrial ☐ Commercial ☐ Residential

11. Future Land Use (Check all that apply):

Crop Land: ☐ Irrigated ☐ Dry land ☐ Improved Pasture ☐ Hay Meadow ☐ CRP
Non-Crop Land: ☒ Rangeland ☐ Timber ☐ Recreational ☒ Other (describe): Grazing
Subdivided: ☐ Industrial ☐ Commercial ☐ Residential

12. Soils:

List all soil map units that occur within the proposed location. Attach the National Resource Conservation Service (NRCS) report showing the "Map Unit Description" report listing the soil typical vertical profile. This data is to used when segregating topsoil.

The required information can be obtained from the NRCS web site at <http://soildatamart.nrcs.usda.gov/> or from the COGCC web site GIS Online map page found at <http://colorado.gov/cogcc>. Instructions are provided within the COGCC web site help section.

NRCS Map Unit Name: 75 RENSTAC-PICEANCE COMPLEX, 2 TO 30 PERCENT SLOPES

NRCS Map Unit Name: _____

NRCS Map Unit Name: _____

13. Plant Community:

Complete this section only if any portion of the disturbed area of the location's current land use is on non-crop land.

Are noxious weeds present: Yes ☒ No ☐

Plant species from: ☐ NRCS or, ☒ field observation Date of observation: 05/04/2009

List individual species: CEDAR TREES, SAGEBRUSH AND NATIVE GRASSES.

Check all plant communities that exist in the disturbed area.

- ☐ Disturbed Grassland (Cactus, Yucca, Cheatgrass, Rye)
☒ Native Grassland (Bluestem, Grama, Wheatgrass, Buffalograss, Fescue, Oatgrass, Brome)
☒ Shrub Land (Mahogany, Oak, Sage, Serviceberry, Chokecherry)
☐ Plains Riparian (Cottonwood, Willow, Aspen, Maple, Poplar, Russian Olive, Tamarisk)
☐ Mountain Riparian (Cottonwood, Willow, Blue Spruce)
☒ Forest Land (Spruce, Fir, Ponderosa Pine, Lodgepole Pine, Juniper, Pinyon, Aspen)
☐ Wetlands Aquatic (Bullrush, Sedge, Cattail, Arrowhead)
☐ Alpine (above timberline)
☐ Other (describe): _____

14. Water Resources:

Rule 901.e. may require a sensitive area determination be performed. If this determination is performed the data is to be submitted with the Form 2A.

Is this a sensitive area: ☒ No ☐ Yes Was a Rule 901.e. Sensitive Areas Determination performed: ☒ No ☐ Yes

Distance (in feet) to nearest surface water: 3588, water well: 4834, depth to ground water: 53

Is the location in a riparian area: ☒ No ☐ Yes Was an Army Corps of Engineers Section 404 permit filed ☒ No ☐ Yes

Is the location within a Rule 317B Surface Water Supply Area buffer zone:

☒ No ☐ 0-300 ft. zone ☐ 301-500 ft. zone ☐ 501-2640 ft. zone

If the location is within a Rule 317B Surface Water Supply Area buffer have all public water supply systems within 15 miles been notified: ☐ No ☐ Yes

15. Comments:

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.

Signed: _____ Date: 08/23/2010 Email: roy.l.springfield@exxonmobil.com

Print Name: Roy L. Springfield Title: Regulatory Specialist

Based on the information provided herein, this Application for Permit-to-Drill complies with COGCC Rules and applicable orders and is hereby approved.

COGCC Approved: _____ Director of COGCC Date: _____

CONDITIONS OF APPROVAL, IF ANY:

All representations, stipulations and conditions of approval stated in this Form 2A for this location shall constitute representations, stipulations and conditions of approval for any and all subsequent operations on the location unless this Form 2A is modified by Sundry Notice, Form 4 or an Amended Form 2A.

Attachment Check List

Att Doc Num	Name	Doc Description
400086733	FORM 2A SUBMITTED	400086733.pdf
400086770	NRCS MAP UNIT DESC	Soil Unit 75 - Rio Blanco CO.pdf
400086780	HYDROLOGY MAP	HYDROLOGY MAP_FORM 2A.pdf
400086781	ACCESS ROAD MAP	ACCESS ROAD MAPS_FORM 2A.pdf
400086782	REFERENCE AREA MAP	REFERENCE AREA MAP_FORM 2A.pdf
400086783	PROPOSED BMPs	BMP_FORM 2A.pdf
400086784	CONST. LAYOUT DRAWINGS	CONSTRUCTION LAYOUT DRAWINGS_FORM 2A.pdf
400086785	WELL LOCATION PLAT	PLAT_FORM 2A.pdf
400086786	OTHER	OTHER TOPOS_FORM 2A.pdf
400086787	OTHER	OTHER_ADDENDUM_FORM 2A.pdf
400086801	REFERENCE AREA PICTURES	REFERENCE PICTURES_FORM 2A.pdf

Total Attach: 11 Files

BMP

<u>Type</u>	<u>Comment</u>
Storm Water/Erosion Control	BMP ATTACHED.

Total: 1 comment(s)

Map Unit Description

Rio Blanco County Area, Colorado

75 Rentsac-Piceance complex, 2 to 30 percent slopes

Setting

Landscape: Foothills, uplands
Elevation: 6000 to 7600 feet
Mean annual precipitation: 14 to 18 inches
Mean annual air temperature: 42 to 45 degrees F
Frost-free period: 80 to 105 days

Composition

Rentsac and similar soils: 60 percent
Piceance and similar soils: 30 percent

Description of Rentsac

Setting

Landform: Ridges
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Residuum weathered from sandstone

Properties and Qualities

Slope: 8 to 30 percent
Depth to restrictive feature: 10 to 20 inches to Lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate maximum: 15 percent
Gypsum maximum: 0 percent
Available water capacity: Very low (about 1.2 inches)

Interpretive Groups

Land capability (non irrigated): 7e

Typical Profile

0 to 5 inches: channery loam
5 to 16 inches: extremely channery loam, extremely gravelly sandy loam, very flaggy loam
16 to 20 inches: unweathered bedrock

Description of Piceance

Setting

Landform: Ridges
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Residuum weathered from sandstone

Properties and Qualities

Slope: 2 to 15 percent
Depth to restrictive feature: 20 to 40 inches to Lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low or high (0.06 to 2.00 in/hr)
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate maximum: 10 percent
Gypsum maximum: 0 percent
Available water capacity: Low (about 4.2 inches)

Interpretive Groups

Land capability (non irrigated): 4e
Ecological site: Rolling Loam (R048AY298CO)

Typical Profile

0 to 4 inches: fine sandy loam
4 to 22 inches: loam, sandy clay loam, clay loam
22 to 30 inches: channery sandy loam, channery loam, channery sandy clay loam

Map Unit Description

Rio Blanco County Area, Colorado

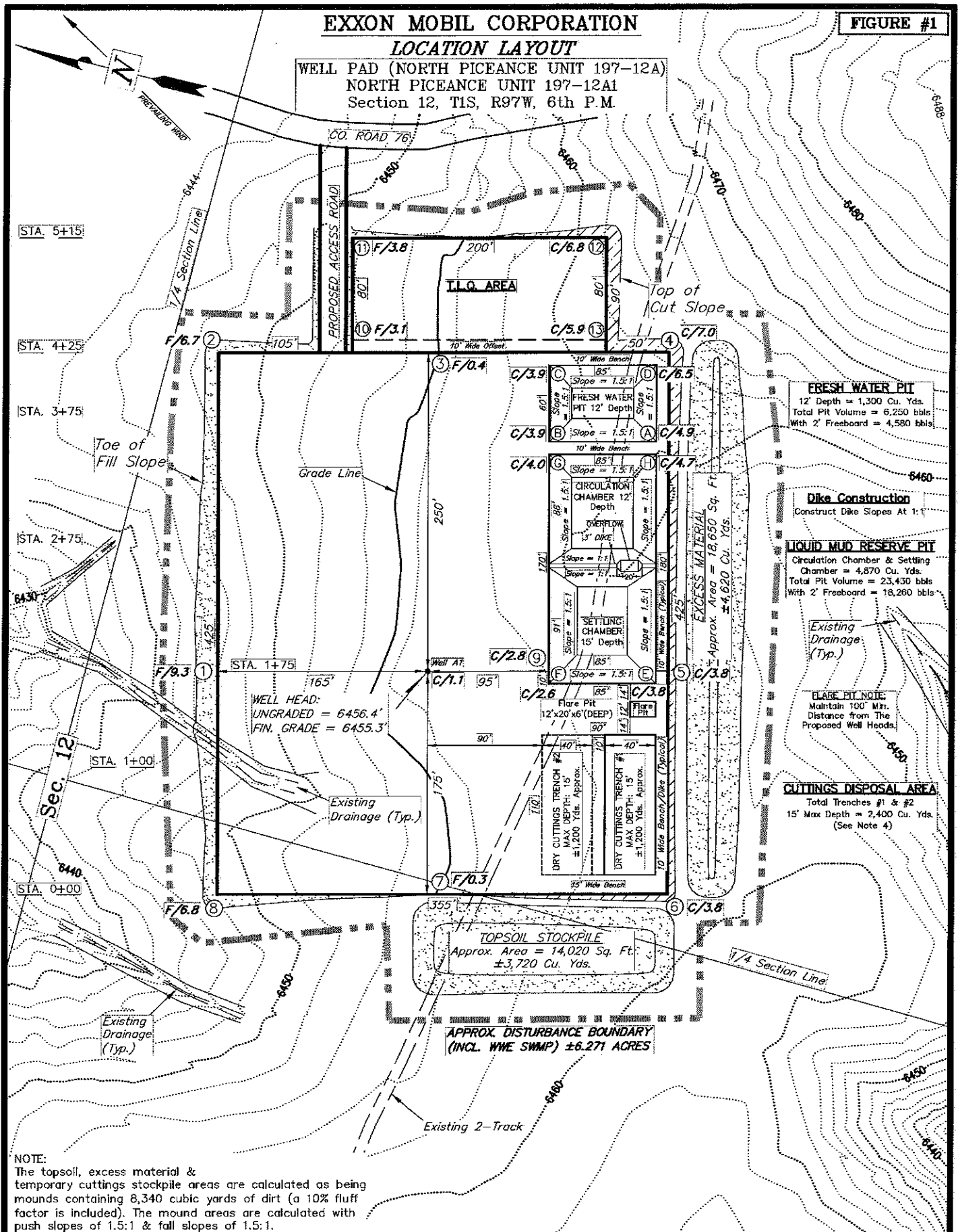
30 to 34 inches: unweathered bedrock

EXXON MOBIL CORPORATION

LOCATION LAYOUT

WELL PAD (NORTH PICEANCE UNIT 197-12A)
NORTH PICEANCE UNIT 197-12A1
Section 12, T1S, R97W, 6th P.M.

FIGURE #1



SURVEYED BY: D.P.	DATE SURVEYED: 05-04-09
DRAWN BY: D.COX	DATE DRAWN: 05-05-09
SCALE: 1" = 100'	REVISED: F.T.M. 01-25-10

Tri State
Land Surveying, Inc.
(435) 781-2501
180 NORTH VERNAL AVE. VERNAL, UTAH 84078

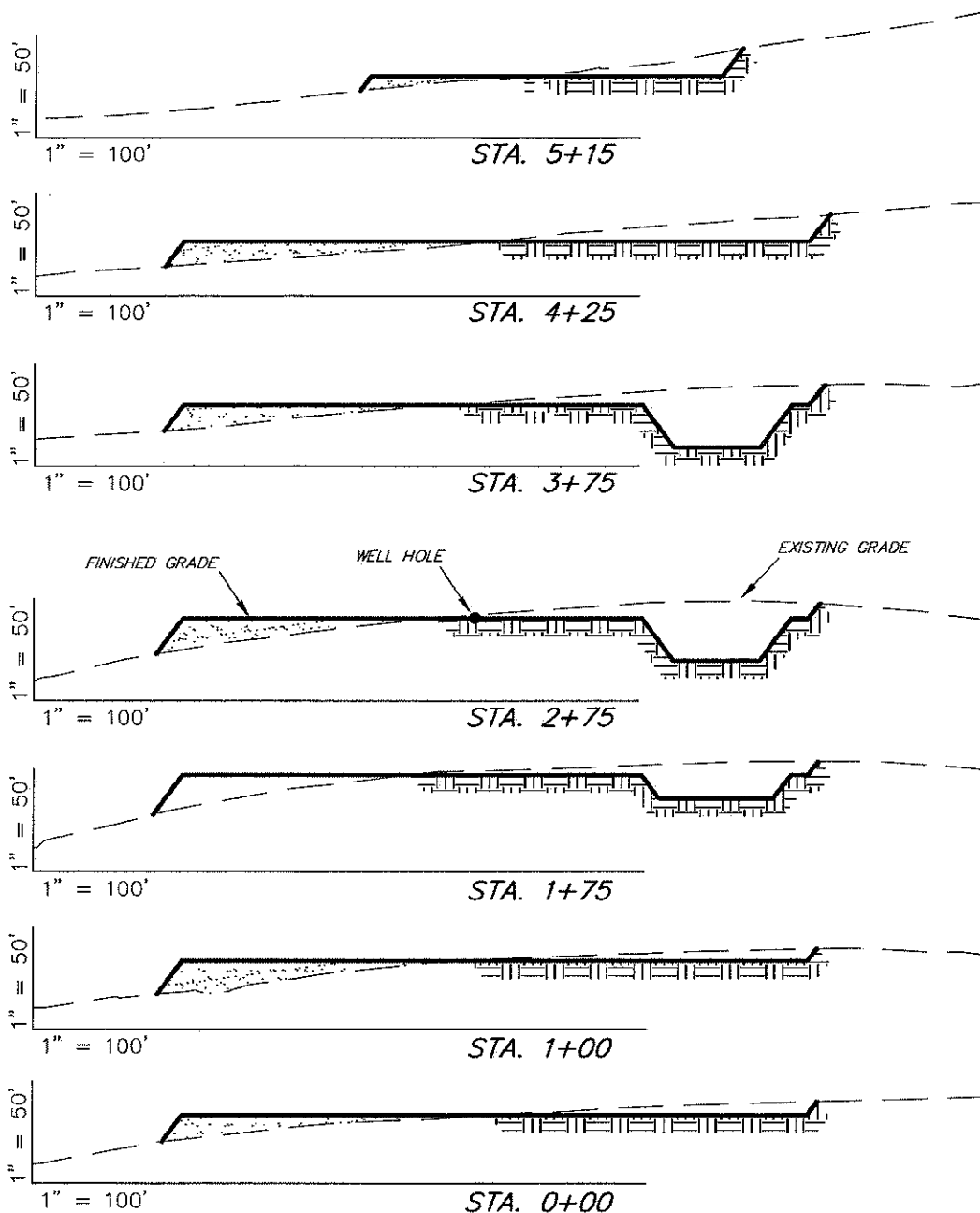
SHEET
2

EXXON MOBIL CORPORATION

FIGURE #2

CROSS SECTIONS

WELL PAD (NORTH PICEANCE UNIT 197-12A)
NORTH PICEANCE UNIT 197-12A1
Section 12, T1S, R97W, 6th P.M.



* 1,110 CU. YDS. OF MATERIAL IS REQUIRED TO BE EXCAVATED & STOCKPILED TO COMPLETE THE FINISH GRADING PLAN AS SHOWN ON SHEET 5.

ESTIMATED EARTHWORK QUANTITIES (No Shrink or swell adjustments have been used) (Expressed in Cubic Yards)

ITEM	CUT	FILL	6" TOPSOIL	EXCESS
FINISH GRADING	*1,460	*350	Topsoil is not included in Pad Cut	*1,110
PITS	6,170	0		6,170
PAD	8,750	11,830	3,380	-3,080
TOTALS	16,380	12,180	3,380	4,200

NOTES:

1.) UNLESS OTHERWISE NOTED CUT SLOPES ARE AT 1:1 & FILL SLOPES ARE AT 1.5:1.

SURVEYED BY: D.P. DATE SURVEYED: 05-04-09
DRAWN BY: D.COX DATE DRAWN: 05-05-09
SCALE: 1" = 100' REVISED: F.T.M. 01-25-10

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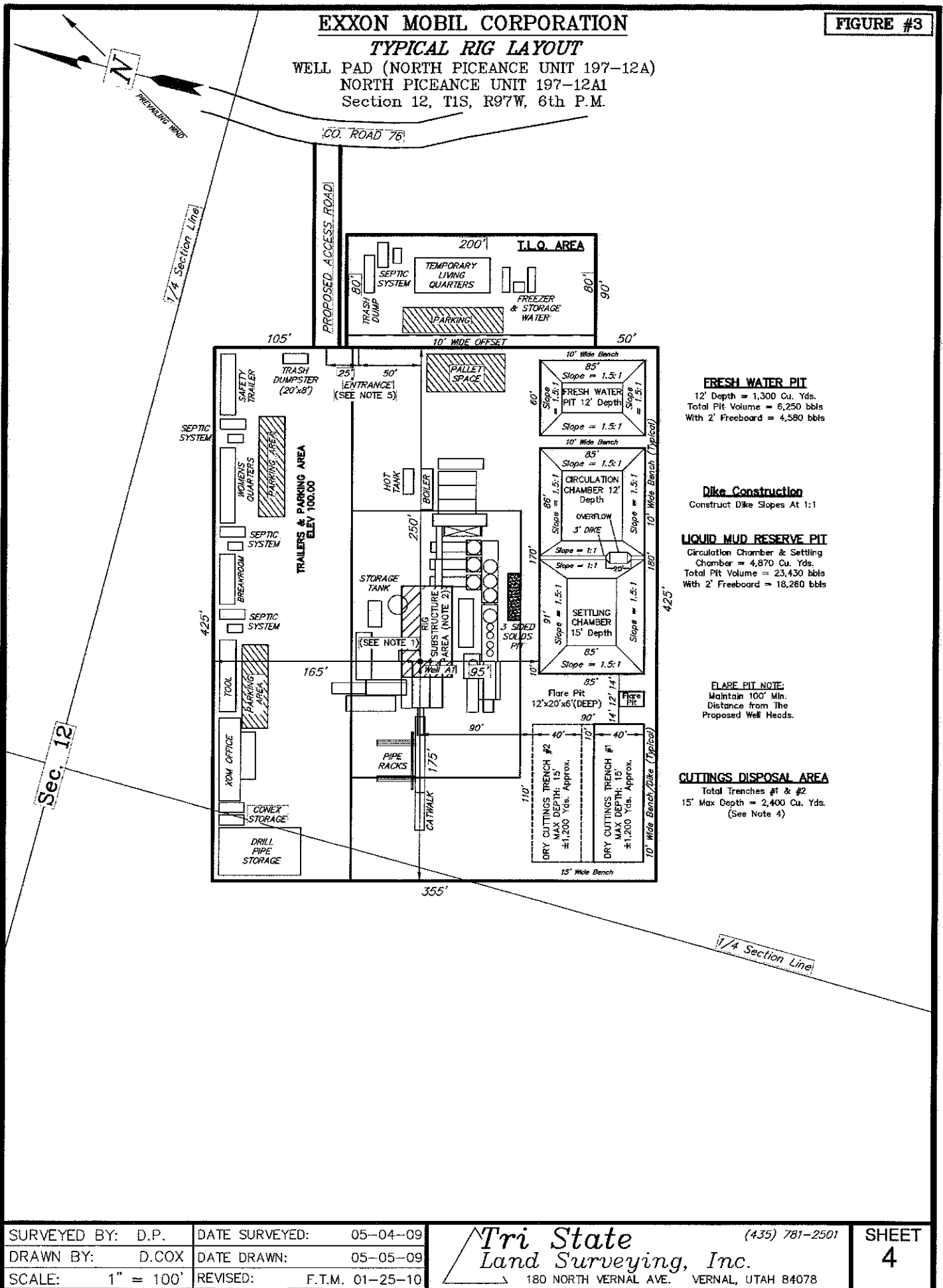
SHEET
3

EXXON MOBIL CORPORATION

FIGURE #3

TYPICAL RIG LAYOUT

WELL PAD (NORTH PICEANCE UNIT 197-12A)
NORTH PICEANCE UNIT 197-12A1
Section 12, T1S, R97W, 6th P.M.



SURVEYED BY: D.P.	DATE SURVEYED: 05-04-09
DRAWN BY: D.COX	DATE DRAWN: 05-05-09
SCALE: 1" = 100'	REVISED: F.T.M. 01-25-10

Tri State
Land Surveying, Inc.
180 NORTH VERNAL AVE. VERNAL, UTAH 84078
(435) 781-2501

SHEET
4

EXXON MOBIL CORPORATION

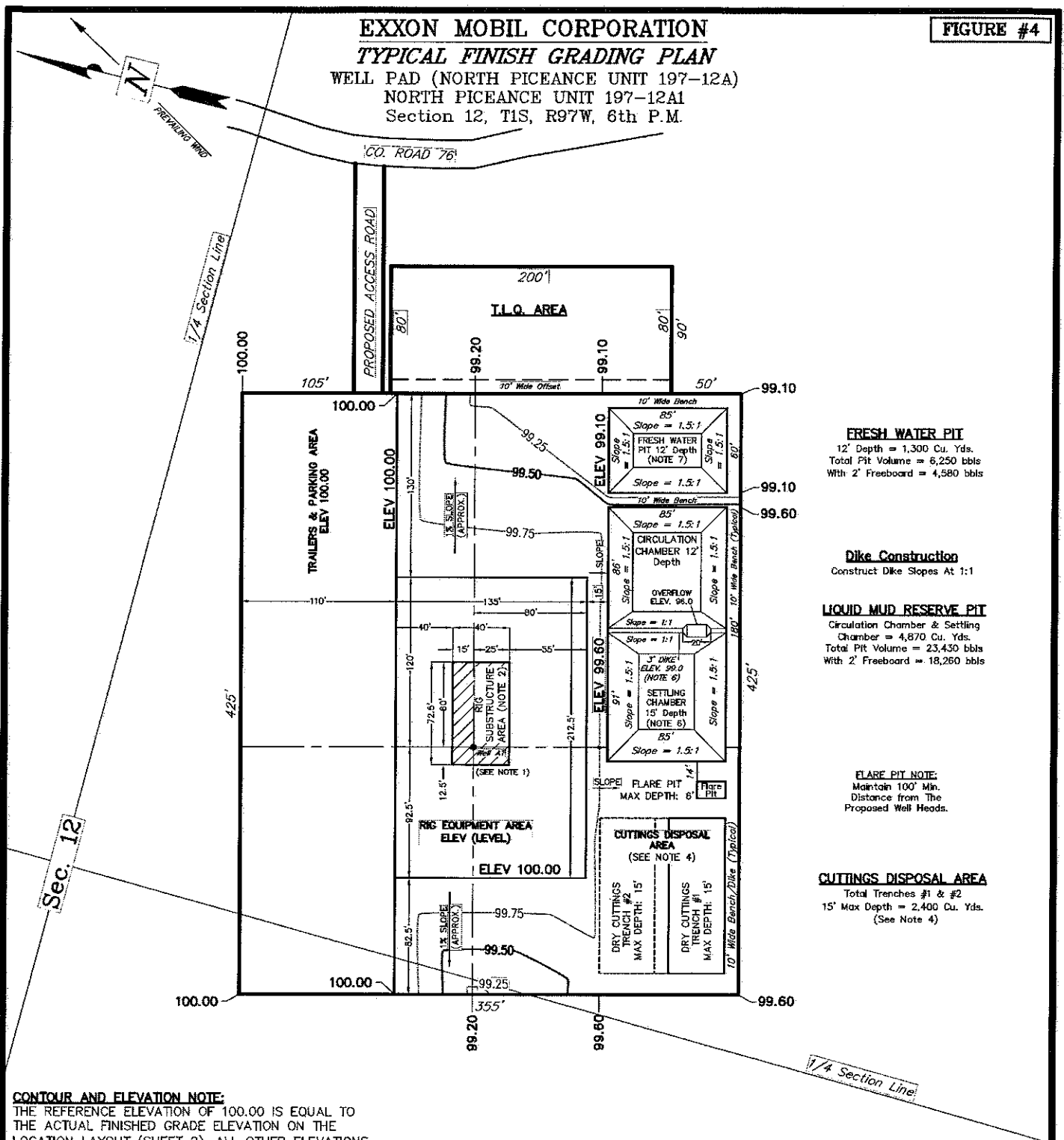
TYPICAL FINISH GRADING PLAN

WELL PAD (NORTH PICEANCE UNIT 197-12A)

NORTH PICEANCE UNIT 197-12A1

Section 12, T1S, R97W, 6th P.M.

FIGURE #4



FRESH WATER PIT

12' Depth = 1,300 Cu. Yds.
Total Pit Volume = 6,250 bbls
With 2' Freeboard = 4,580 bbls

Dike Construction

Construct Dike Slopes At 1:1

LIQUID MUD RESERVE PIT

Circulation Chamber & Settling
Chamber = 4,870 Cu. Yds.
Total Pit Volume = 23,430 bbls
With 2' Freeboard = 18,260 bbls

FLARE PIT NOTE:
Maintain 100' Min.
Distance from The
Proposed Well Heads.

CUTTINGS DISPOSAL AREA

Total Trenches #1 & #2
15' Max Depth = 2,400 Cu. Yds.
(See Note 4)

CONTOUR AND ELEVATION NOTE:

THE REFERENCE ELEVATION OF 100.00 IS EQUAL TO
THE ACTUAL FINISHED GRADE ELEVATION ON THE
LOCATION LAYOUT (SHEET 2). ALL OTHER ELEVATIONS
ARE RELATIVE TO THIS REFERENCE ELEVATION.

Finish Grading Plan

(Note 3)

* 1,110 CU. YDS. OF MATERIAL IS REQUIRED TO BE
EXCAVATED & STOCKPILED TO COMPLETE THE FINISH
GRADING PLAN.

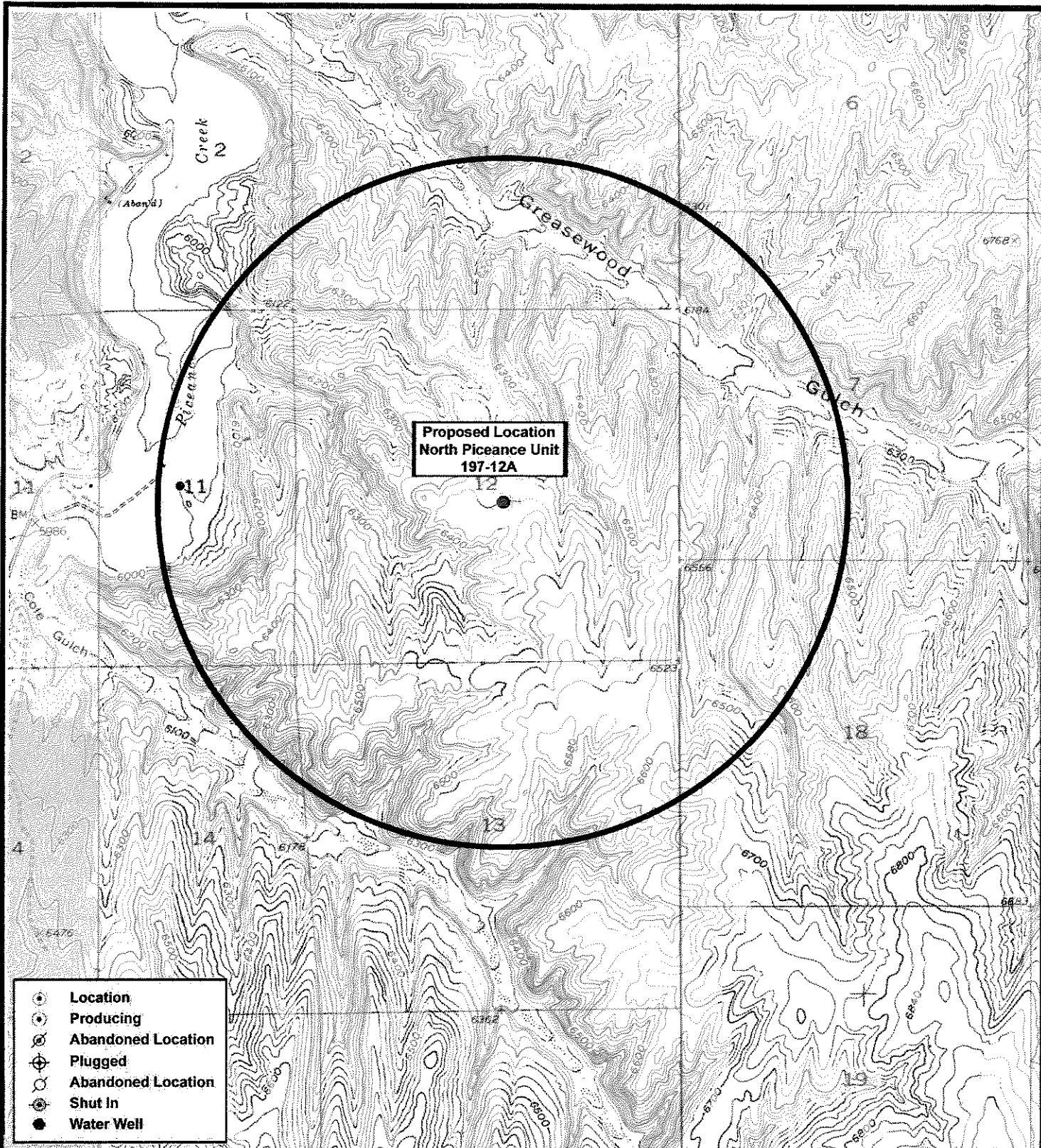
Notes

1. Layout to be used for single well construction.
2. Rig Substructure Area to be level. Compaction and testing per wellpad construction specification.
3. Perimeter ditching not shown. Grading plan to be coordinated with approved Individual Storm Water Management Plan for each site.
4. Cuttings Trench #1 to be constructed with wellpad. Additional trenches will be constructed during drilling operations as required.
5. Indicated spacing may be increased to 75' based upon site topography. Alternate access location may be selected based upon site topography and direction of primary (existing) access.
6. Excavate Reserve Pit to initial 12' depth. Construct diversion dike with 3.0' additional excavation from settling chamber.
7. Fresh Water Pit to be constructed only if required by Drilling.

SURVEYED BY: D.P.	DATE SURVEYED: 05-04-09
DRAWN BY: D.COX	DATE DRAWN: 05-05-09
SCALE: 1" = 100'	REVISED: F.T.M. 01-25-10

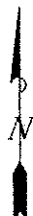
Tri State
Land Surveying, Inc.
(435) 781-2501
180 NORTH VERNAL AVE. VERNAL, UTAH 84078

SHEET
5



Exxon Mobil Corporation

**North Piceance Unit 197-12A
SEC. 12, T1S, R97W, 6th P.M.**



**Tri-State
Land Surveying Inc.**

(435) 781-2501
180 North Vernal Ave. Vernal, Utah 84078

SCALE: 1" = 2,000'

DRAWN BY: JAS

DATE: 04-28-2009

Legend

● Location
○ One-Mile Radius

TOPOGRAPHIC MAP

"C"

SHEET

9