

Sensitive Area Determination Checklist
SG Interests I, Ltd.

Person(s) conducting inspection	Catherine Dickert	08/26/2014
Site Information	existing well pad in irrigated pasture	
Location:	Falcon Seaboard 11-90-12 #3	1430
Type of Facility:	Gas well	
Environmental Conditions	mostly cloudy, light sprinkles	
Temperature	≈70°F	

Has the proposed, new or existing location been designated as a sensitive area?

Yes _____

No _____

SURFACE WATER

- 1) Are there any surface water features or SWSAs adjacent to or within ¼ mile of the proposed/new facility?

Yes _____

No _____

If yes, list type of surface water feature(s), i.e. rivers, creeks, streams, seeps, springs, wetlands:

The location will expand into irrigated pasture. Ditches will be rerouted as per landowner direction.

The field is irrigated by a series of ditches that taper off dispersing the irrigation water. The location is approximately 470' from Roberts Creek. The well pad will be cut down into the opposite side of the ridge, creating a barrier between the well pad and Roberts Creek. See the hydrology map for locations of the surface waters in the vicinity of the project.

- 2) Could a potential release from the facility reach surface water features?

Yes _____

No _____

If yes, describe the pathway a release from the facility would likely follow to determine if the potential to impact surface water is high or low. It is possible that an uncontrolled release from the well pad could flow into an irrigation ditch.

- 3) Is the potential to impact surface waters from a facility release high or low?

High _____

Low _____

The potential is high if the location is not built and maintained to mitigate this threat.

GROUNDWATER

- 1) Will the proposed/new or existing facility have any pits that will contain hydrocarbons and chlorides or other E&P wastes?

Yes _____

No _____

If yes, list the pit types(s):

- 2) Is the site of the proposed facility underlain by an unconfined aquifer or recharge zone?

Yes _____

No _____

- 3) Is the hydraulic conductivity of the underlying soil or geologic material $\leq 1.0 \times 10^{-7}$ cm/sec?

Yes _____

No (the Ksat value for Fughes loam is described as moderately low to moderately high.)

- 4) Is the proposed facility located within 1/8 mile of domestic water well or ¼ mile of a public water supply well which would use the same aquifer?

Yes _____

No _____

Well permit #264800 is approximately 0.5 miles from the well head. The depth of this well is 10'. Well permit #265700 is just over 0.5 mile from the well head. It is also 10' deep. Both of these wells are to the northeast of the planned gas well. Another water well (permit #267736), about 8/10 mile to the southeast of the planned location, is 10' deep.

- 5) Is the proposed facility located within a 100-year floodplain?

Yes _____

No (See floodplain map.)

6) Is the depth to groundwater known?

Yes _____ (If yes, follow instructions provided in (a) of this section.)

No X (If no, follow instructions provided in (b) of this section.)

(a) If yes, could a potential release from the proposed facility reach groundwater?

Yes _____ If yes, explain:

No _____

(b) If no: (i) Evaluate surrounding soils, topography, and vegetation which may suggest the presence of shallow groundwater. The well is located above an irrigated pasture.

(ii) Gather information from surrounding well data in order to determine a depth to groundwater, i.e. State Engineer's Office. Wells within a mile of the planned gas well are shallow; 10 deep.

7) Is the potential to impact groundwater from the facility in the event of a release high or low?

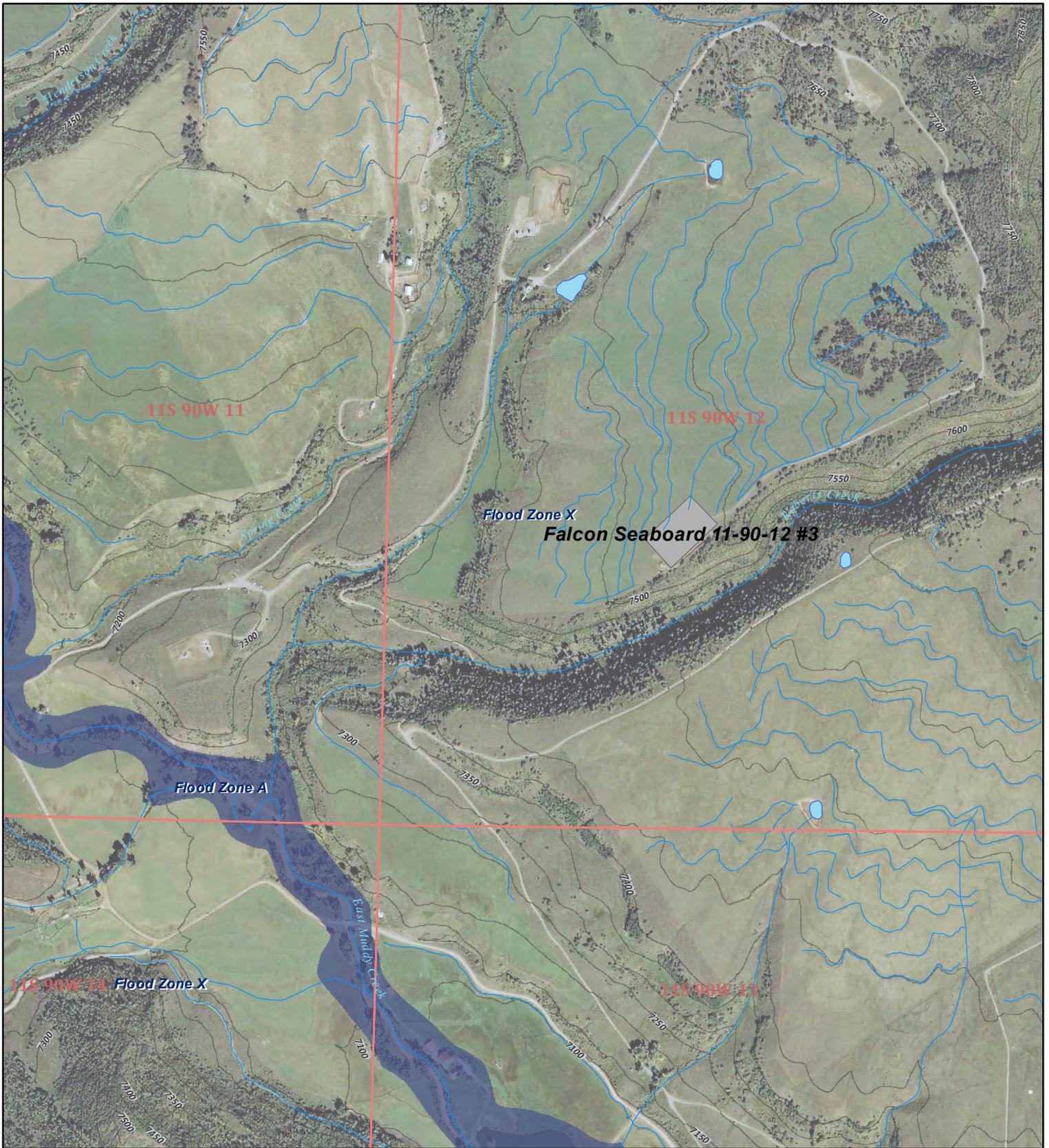
High X

Low _____

Additional Comments: This location is classified as a sensitive area. Site-specific BMPs that will be employed at this location include maintenance of diversion ditches around the well pad to prevent sheet flow from washing over the pad and sedimentation barriers such as silt fence or straw bales to keep sediment from leaving the site. The pad will have a perimeter berm/ditch as well to keep fluid from leaving the site. All berms and ditches will be inspected regularly and maintained as needed. Equipment and tanks on the pad will be designed with secondary containment sufficient for the volume of fluid stored plus maximum precipitation accumulation. SG Interests has a spill prevention, countermeasure and containment plan of which regular facility inspections are a part. This site will be added to the spill plan as well as to SG Interests' field-wide stormwater plan.

Signature Catherine D. Drake

Date 01/14/2015



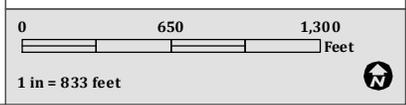
-  Well pad
-  Stream/ditch
-  Pond/Lake

- FEMA Flood Zone**
-  A
 -  X

-  50-foot contour
-  PLSS section line

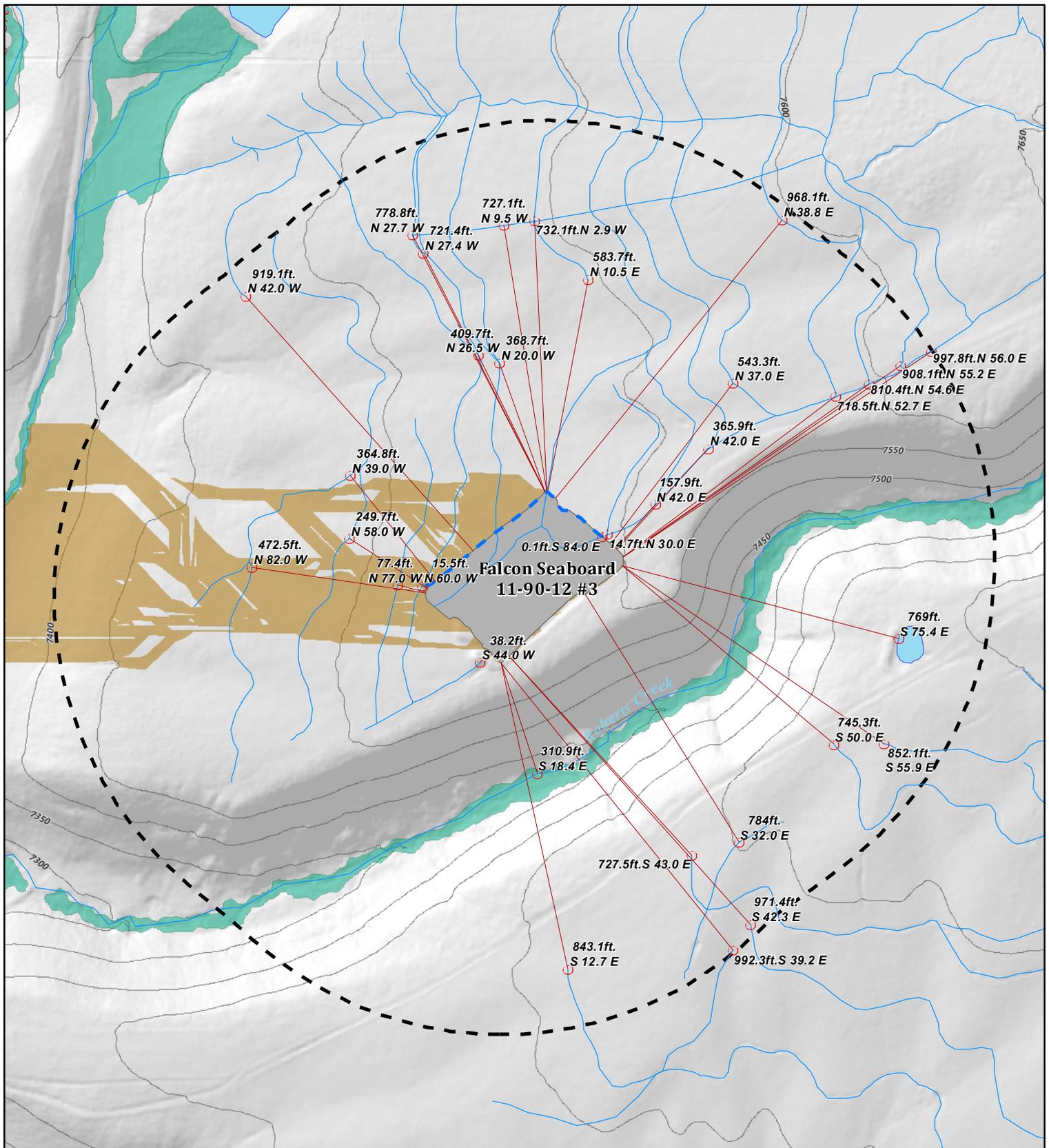
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FEMA Flood Zone Map
 T11S R90W Section 12



Disclaimer: This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.

*Prepared for SG Interests, Inc.
 by TerraCognito GIS, Inc.
 August 2014*



Location disturbance	Stream/ditch	FEMA Flood Zone
1000 ft. from disturbance	Pond/Lake	A (none near location)
Down-gradient of disturbance	Mapped wetland	X (entire map extent)
Horizontal distance & approx. bearing from edge of disturbance to surface water feature/wetland	Planned modification	50-ft. contour
		DWR water well (none near location)

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Hydrology Map
 T11S R90W Section 12

0 285 570
 Feet
 1 in = 355 feet

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Prepared for SG Interests, Inc.
 by TerraCognito GIS, Inc.
 October 2014