

CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	Prima Produced Water Release
Proposed Implementation Date:	August – September 2013
Proponent:	Prima Exploration, Inc., 100 Fillmore Street, Ste. 450 Denver, CO 80206 Ph: (303) 755-5681
Location:	NE ¼ NW ¼ SW ¼ , N ½ N ½ NE ¼ SW ¼ , SW ¼ SE ¼ SE ¼ NW ¼ Section 16 – T36N-R54E (Common School Trust)
County:	Sheridan

I. TYPE AND PURPOSE OF ACTION

The proponent has requested permission to conduct work regarding the treatment of agricultural soils that have been contaminated from a produced saltwater release. The spill covered approximately 2 acres and has damaged the soil such that crops will no longer grow within the spill area. Prima Exploration proposes to apply a soil amendment to the contaminated area in order to flush the salts below the vegetative root zone by using a trademarked product called DeSalt Plus from R&A Technology. The ground would be tilled or disked prior to application of DeSalt Plus, after which water may be applied to speed up the remediation process. The preparation and application time is estimated to take a total of 2-3 days.

II. PROJECT DEVELOPMENT

1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED:

Provide a brief chronology of the scoping and ongoing involvement for this project.

Randy Dirkson, DNRC Land Use Specialist, conducted a field review of the site on July 22, 2013. Scoping was performed by researching the Montana Natural Heritage Program.

2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:

Prima is required to follow all other Local, State, and Federal laws.

3. ALTERNATIVES CONSIDERED:

No Action Alternative: No action would be taken and the crop land would be left contaminated and unproductive.

Action Alternative: Permission would be granted allowing Prima Exploration to till the soil and apply the amendment, DeSalt, to the contaminated area.

III. IMPACTS ON THE PHYSICAL ENVIRONMENT

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" if no impacts are identified or the resource is not present.*

4. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:

Consider the presence of fragile, compactable or unstable soils. Identify unusual geologic features. Specify any special reclamation considerations. Identify any cumulative impacts to soils.

Geology in the proposed project area consists the Tongue River Member of the Fort Union Formation which can have a thickness of up to 800'. Overlying soils consist of the Williams-Zahill Loams which are primarily clay loam with loam at the surface. Soils are rated by the NRCS as being favorable for shallow and deep tilling. Reclamation of the soils will include using a trademarked chemical called DeSalt Plus to act as a cation exchange agent, which will desorb the sodium, introduced by the produced water, from the soils and replace the sodium with more favorable cations such as ammonium, calcium and potassium.

5. WATER QUALITY, QUANTITY AND DISTRIBUTION:

Identify important surface or groundwater resources. Consider the potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality. Identify cumulative effects to water resources.

The proposed action is not expected to affect groundwater or surface water quality or quantity. DeSalt Plus is supposed to contain no harmful chemicals and should be safe for use near water and wildlife.

6. AIR QUALITY:

What pollutants or particulate would be produced? Identify air quality regulations or zones (e.g. Class I air shed) the project would influence. Identify cumulative effects to air quality.

Initial tilling of the 2 acres of soil will cause temporary fugitive dust pollution lasting 2-3 days. Existing soils (Williams-Zahill Loam) at the proposed expansion area are rated by the NRCS as having a moderate resistance to fugitive dust formation.

7. VEGETATION COVER, QUANTITY AND QUALITY:

What changes would the action cause to vegetative communities? Consider rare plants or cover types that would be affected. Identify cumulative effects to vegetation.

Vegetation and topsoil would be altered by either disking or tilling in the area where the remediation is proposed. The area of disturbed soils should not be greater than 2 acres. Once the soil is tilled, 4,000 gallons of DeSalt will be applied and water will be added. Crops will be seeded within the reclamation area in the spring and monitored for regrowth success. A review of the Natural Heritage Tracker database did not indicate the existence of rare plant species in the area of proposed construction.

8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:

Consider substantial habitat values and use of the area by wildlife, birds or fish. Identify cumulative effects to fish and wildlife.

A variety of big game, small mammals, and songbirds use this area. Due to the short time period in which the proposed activity would occur, no cumulative effects are expected to occur to fish and wildlife.

9. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:

Consider any federally listed threatened or endangered species or habitat identified in the project area. Determine effects to wetlands. Consider Sensitive Species or Species of special concern. Identify cumulative effects to these species and their habitat.

A search was conducted using the Montana Natural Heritage Program database to identify point observations of endangered, threatened, or candidate species within one mile of the proposed activity and no species were found.

A search for the Montana species of concern within one mile of the proposed activity resulted in no species being found.

No impacts to unique, endangered, fragile or limited environmental resources are anticipated to occur as a result of the proposed action.

10. HISTORICAL AND ARCHAEOLOGICAL SITES:

Identify and determine effects to historical, archaeological or paleontological resources.

The entire site proposed to be reclaimed has been historically cultivated, thus no historical, archaeological, or paleontological resources are expected to be found or disturbed as a result of the proposed action.

11. AESTHETICS:

Determine if the project is located on a prominent topographic feature, or may be visible from populated or scenic areas. What level of noise, light or visual change would be produced? Identify cumulative effects to aesthetics.

None.

12. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:

Determine the amount of limited resources the project would require. Identify other activities nearby that the project would affect. Identify cumulative effects to environmental resources.

None.

13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA:

List other studies, plans or projects on this tract. Determine cumulative impacts likely to occur as a result of current private, state or federal actions in the analysis area, and from future proposed state actions in the analysis area that are under MEPA review (scoped) or permitting review by any state agency.

None.

IV. IMPACTS ON THE HUMAN POPULATION

- *RESOURCES* potentially impacted are listed on the form, followed by common issues that would be considered.
- Explain **POTENTIAL IMPACTS AND MITIGATIONS** following each resource heading.
- Enter "NONE" if no impacts are identified or the resource is not present.

14. HUMAN HEALTH AND SAFETY:

Identify any health and safety risks posed by the project.

None.

15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:

Identify how the project would add to or alter these activities.

The proposed remediation is projected to increase agricultural productivity to original levels.

16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:

Estimate the number of jobs the project would create, move or eliminate. Identify cumulative effects to the employment market.

None.

17. LOCAL AND STATE TAX BASE AND TAX REVENUES:

Estimate tax revenue the project would create or eliminate. Identify cumulative effects to taxes and revenue.

None.

18. DEMAND FOR GOVERNMENT SERVICES:

Estimate increases in traffic and changes to traffic patterns. What changes would be needed to fire protection, police, schools, etc.? Identify cumulative effects of this and other projects on government services.

None.

19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:

List State, County, City, USFS, BLM, Tribal, and other zoning or management plans, and identify how they would affect this project.

No known zoning or management plans exist for this area.

20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:

Identify any wilderness or recreational areas nearby or access routes through this tract. Determine the effects of the project on recreational potential within the tract. Identify cumulative effects to recreational and wilderness activities.

None.

21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:

Estimate population changes and additional housing the project would require. Identify cumulative effects to population and housing.

None.

22. SOCIAL STRUCTURES AND MORES:

Identify potential disruption of native or traditional lifestyles or communities.

None.

23. CULTURAL UNIQUENESS AND DIVERSITY:

How would the action affect any unique quality of the area?

None.

24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:

Estimate the return to the trust. Include appropriate economic analysis. Identify potential future uses for the analysis area other than existing management. Identify cumulative economic and social effects likely to occur as a result of the proposed action.

None.

EA Checklist Prepared By:	Name: Trevor E. Taylor	Date: August 21 st , 2013
	Title: MMB Petroleum Engineer	

V. FINDING

25. ALTERNATIVE SELECTED:

After reviewing the Environmental Assessment, I have selected the Action Alternative, to approve the remediation of the damaged soil. I believe this alternative can be implemented in a manner that is consistent with the long-term sustainable natural resource management of the area and help to restore agricultural soil back to generating revenue for the common school trust.

26. SIGNIFICANCE OF POTENTIAL IMPACTS:

I conclude all identified potential impacts will be mitigated by utilizing the stipulations listed below and no significant impacts will occur as a result of implementing the selected alternative.

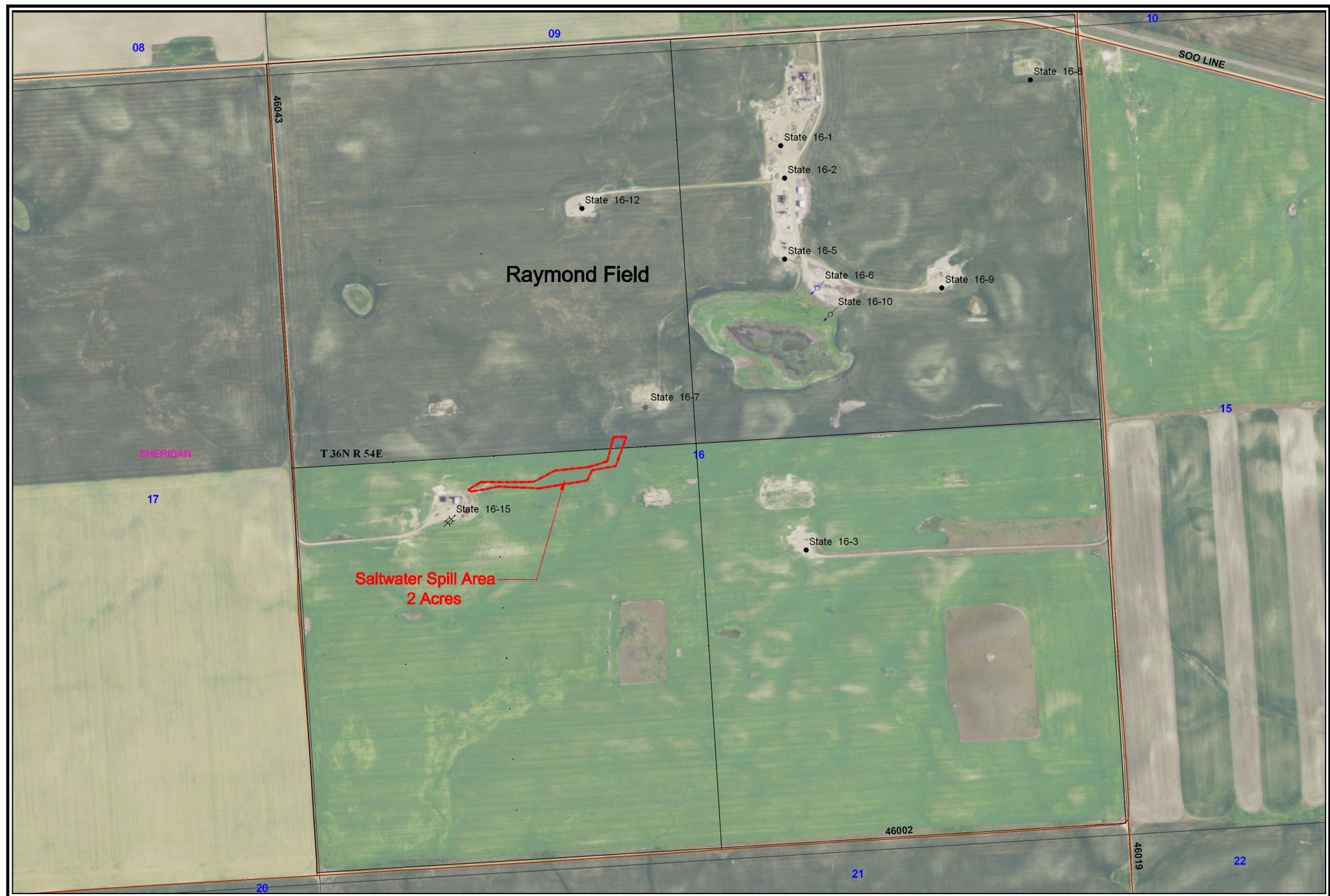
Stipulations:

- (1) Proponent will repair any soil damage to original quality and will monitor soil and crop yields for three full growing seasons after remediation. If crop yields do not recover to within reasonable levels of original yields by the third growing season, Proponent will replace the soil damaged by the saltwater spill with soil of like quality to that soil directly adjacent to the spill area.
- (2) All reports of soil evaluations and crop yields shall be submitted to the DNRC until crop yields from the damaged soil have recovered to approximate pre-spill yields.
- (3) All vehicles must be washed, particularly the undercarriage, to assure removal of dirt and plant material and seeds prior to entering the tract.

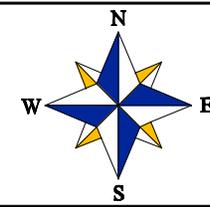
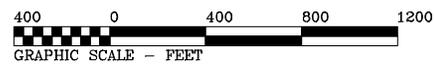
27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

EIS More Detailed EA No Further Analysis

EA Checklist Approved By:	Name: Monte Mason
	Title: MMB Bureau Chief
Signature: /s/ Monte Mason	Date: 8/22/13



Prima Saltwater Spill Remediation



Map Description: Site Map
Location: T36N - R54E, Section 16
Date: August 22, 2013
Prepared By: Trevor Taylor