U.S. Department of Energy (DOE) Office of Legacy Management (LM) National Environmental Policy Act (NEPA) Environmental Checklist

Project/Activity: Maintenance and Related Activities at the Burris Park, California, Site

A. Brief Project/Activity Description

The Burris Park, California, Site is located in Kings County about 30 miles south of Fresno. Kings County owns the 57-acre park complex. The University of California, Berkeley (UC Berkeley), under contract to the U.S. Atomic Energy Commission (AEC), established the Burris Park research site in 1956 to study the removal of radioactive strontium-90 (Sr-90) from soil. The site was decommissioned in 1963 by placing a concrete cap over the Sr-90 test plots and installing a fence, signage, and a permanent plaque. Over the years the site has been used as a display area for old farm equipment belonging to an adjacent museum. The site is in need of general maintenance. Because of the AEC contamination under the concrete cap, the U.S. Department of Energy (DOE) was authorized to take responsibility for maintaining the site. In November 2014, the Office of Legacy Management (LM) assumed long-term care responsibilities for the site under the Formerly Utilized Sites Remedial Action Program (FUSRAP). No further remediation is required under FUSRAP, but post-closure care is required to ensure the remedy remains protective of human health and the environment.

The site consists of a 50-foot by 50-foot fenced area with a 42-foot by 42-foot concrete pad covering the former research plots. Two dead trees and two live trees are inside the fenced area, and the pad is littered with tree limbs and a thick layer of leaf debris. LM plans to maintain the physical condition of the site and conduct radiological surveys to confirm that the site poses no unacceptable risk to the public or the environment. LM is proposing to conduct a site visit and to coordinate initial maintenance actions for the site. Those actions would include scanning and removing the farm equipment; removing and sizing dead trees, limbs, and leaf mulch from within the fenced area; clearing debris from the concrete pad; inspecting the pad for integrity and degradation; performing fence and gate repair; removing live trees from within the fenced area and cutting stumps to grade; chipping or sizing live tree materials to compost or mulch; and replacing signs on each side of the fenced area.

The County has indicated that an irrigation supply well and a domestic water supply well would be used to supply any water necessary for the project. It is expected that about 100 gallons would be needed to clean off the concrete pad. Minor ground disturbance may occur in areas of the site not covered with cement. A single bent fence post may be straightened or replaced in the same location if necessary, and about 60 feet of fencing will be replaced. All barbed wire would be removed and disposed of at the municipal landfill.

Some of the maintenance actions would be subcontracted. The Legacy Management Support (LMS) Contractor would provide oversight as well as perform some of the survey characterization and maintenance actions. The initial maintenance actions would be scheduled for March 2015 and are expected to take approximately a week to complete. Some light to heavy equipment, including but not limited to chainsaws, bucket trucks, and man-lifts, may be needed to properly remove the farm equipment, trees, and debris.

B. Environmental Concerns

If the proposed action could result in potential sources of impacts, or could result in an affect on the environmental and human health considerations listed in Table 1 below, the "Yes" column is checked and an explanation is provided as to the physical, chemical and radiological sources or impacts (qualified or

quantified when possible). An item checked "Yes" does not necessarily mean that an adverse impact would occur. However, it does indicate that DOE believes an explanation is warranted, including actions DOE would implement to minimize or eliminate the potential impact, and actions to comply with Federal, state and tribal regulations. If the "No" column is checked, no explanation is identified as generally necessary.

Table 1. Potential Sources of Impacts, and Environmental and Human Health Considerations

Element	Yes	No	Element	Yes	No
Air, Noise, and Human Protection			**Natural and Cultural Resources**		
Air emissions/air quality	☒	☐	Wetland/floodplain impacted	☐	☒
Noise	☒	☐	Endangered Species Act consultation	☐	☒
Exposure/impacts to public or workers	☒	☐	State or Tribe listed or protected species	☐	☒
Waste and Materials Handling			Migratory birds breeding or nesting	☒	☐
Solid waste generation	☒	☐	Cultural/archaeological resources present	☒	☐
Mixed waste management	☐	☒	**Soil and Water**		
Chemical storage on site	☐	☒	Radioactive materials/soils	☒	☐
Toxic substances management	☐	☒	Surface water use/quality/contamination	☐	☒
Regulated quantities of petroleum used or stored on site	☒	☐	Groundwater use/quality/contamination	☐	☒
Pesticide/herbicide use	☐	☒	Surface (ground) disturbance	☒	☐
Other					
Access to/use of DOE property	☒	☐			

C. Explanation and Qualification of All "Yes" Responses

Air emissions/air quality: The equipment, tree, and debris removal activities are expected to produce minimal dust. Dust suppression efforts such as wetting down surfaces would be used to reduce airborne sawdust. Temporary exhaust emissions from the use of light to heavy machinery would also be expected but would be similar in context and intensity to county maintenance actions that routinely take place in the immediate surrounding area.

Noise: Noise from the use of light to heavy machinery would also be expected, but it would be temporary and similar in context and intensity to county maintenance actions that routinely take place in the immediate surrounding area. Personal protective equipment (PPE) would be used as necessary to comply with Occupational Safety and Health Administration regulations.

Exposure/impacts to public or workers: Multiple radiological surveys have been conducted over the last 35 years, and they have shown Sr-90 concentrations at background levels in accessible areas outside of the containment structure. Kings County and UC Berkeley officials agree that the site does not pose an unacceptable risk to the public in its present configuration. Though not required, as a best management practice radiological surveys would be conducted on the equipment and debris prior to removal. Valley Fever is a spore-based sickness that can affect people who have not been exposed to the spores. The potential for this condition and other hazards has been identified in the job safety analysis, and PPE would be worn accordingly. Other necessary protective gear would be worn as determined necessary by Health and Safety oversight.

Solid waste generation: Live trees would be cut, chipped, and mulched for reuse by the County. The tree stumps would be cut to within a few inches of ground surface and remain in the ground. Miscellaneous

debris around the site would be disposed of at the municipal landfill. Any materials suspected to contain Sr-90 contamination would be scanned or wiped clean to ensure that no contamination remains. About 60 feet of fencing would be replaced. All barbed wire around the top of the fence would be removed and disposed of at the municipal landfill.

Regulated quantities of petroleum used or stored on site: An onsite refueling plan and appropriate containment would need to be provided if any fuel is stored onsite for the chainsaws and other equipment.

Access to/use of DOE property: Worker access to the site would be arranged with DOE and the County. Old restricted-access signs would be replaced with new signs. The gate would be repaired and the lock replaced with a DOE lock. Appropriate access agreements would be obtained for access to non-DOE land required for this work.

Migratory birds breeding or nesting: Conditions in the area can support nesting year-round. The trees would be surveyed for nests prior to any work being conducted in the area. If any nests with eggs or chicks are present, then disturbing work would be postponed until the eggs have hatched and the chicks have fledged.

Cultural/archaeological resources: The old farm equipment would be moved to a different location within the park complex and would remain in the custody of the local museum. No other cultural resources would be expected to be found due to previous site disturbance in creating and decommissioning the research area.

Radioactive materials/soils: Approximately 20 millicuries of Sr-90 remain beneath the containment structure. Any low-level radioactive material found outside of the containment structure, such as dead tree limbs, tree trunks, or other debris, would be appropriately sized, collected in soft-sided boxes, secured, and disposed of at an approved low-level radioactive waste facility. All PPE associated with this activity would be managed similarly.

Surface/Ground Disturbance: Minor ground disturbance may occur in areas of the site not covered with cement. The only ground penetration expected would be related to replacing the bent fence post. The intent is for the new post to be welded on to the base of the existing post to minimize any ground disturbance. In the event that is not possible, the new post would be placed in the same hole and the hole would be filled with concrete. A penetration permit would be prepared for this action.

D. Eligibility/Conditions

DOE has determined that certain classes of actions do not individually or cumulatively have a significant effect on the human environment (see "categorical exclusions" in 10 CFR 1021.410). The list of these actions is available in Appendix A or B to Subpart D of 10 CFR 1021. The DOE determination is based on verification that the proposed action (1) has no extraordinary circumstances (e.g., scientific controversy of the effects of the action, uncertain effects, unresolved issues) that may affect the significance of the environmental effects of the proposed action, (2) has not been segmented into smaller actions to meet the definition of a categorical exclusion and is not "connected" to other actions with potentially significant impacts, and (3) is not related to other proposed actions with cumulatively significant impacts and is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211.

Additionally, if proposed actions fall within the actions listed in 10 CFR 1021, Appendix B of Subpart D, the proposed actions must be evaluated for additional conditions. The proposed actions must not:

- Violate applicable statutory, regulatory, or permit requirements for the environment, safety, and health, including DOE requirements and Executive Orders.
- Require siting and construction or a major expansion of waste-storage, disposal, recovery, or treatment facilities (including incinerators and facilities for treating wastewater, surface water, and groundwater), but the proposal may include categorically excluded waste storage, disposal, recovery, or treatment actions or facilities.
- Disturb hazardous substances, pollutants, contaminants, or Comprehensive Environmental Response, Compensation, and Liability Act–excluded petroleum and natural gas products that preexist in the environment, such that the action would result in uncontrolled or unpermitted releases.
- Adversely affect environmentally and culturally sensitive resources, including those listed in paragraph B(4) of 10 CFR 1021, Subpart D, Appendix B. An action may be categorically excluded if, although sensitive resources are present on a site, the action would not adversely affect those resources.
- Involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species, unless the proposed activity would be contained or confined in a manner designed and operated to prevent unauthorized release into the environment and conducted in accordance with applicable requirements, such as those listed in paragraph B(5) of 10 CFR 1021, Subpart D, Appendix B.

E. Recommendation and Project Concurrences

The appropriate contractor personnel should sign below (but not check any boxes) if they agree with the statements and agree that the actions meet the criteria. The LM Site Manager should check the boxes applicable to the manager's own evaluation and sign below.

The information provided in Sections A through C of this Environmental Checklist reasonably represents the scope of the proposed actions and is described in sufficient detail to allow a reasonable determination of the potential environmental impacts.

☒ Agree ☐ Disagree

Additionally, none of the special circumstances and conditions listed in Section D of this Environmental Checklist are expected to occur.

☐ Agree ☐ Disagree ☒ Unsure

Dana Ravelojaona

Digitally signed by Dana M. Ravelojaona
Date: 2015.03.06 19:15:38 -07'00'

Dana Ravelojaona — Date
LMS Contractor NEPA Coordinator

Darlene M DePinho

Darlene Depinho
2015.03.09 10:15:01 -06'00'

Darlene DePinho — Date
LMS Contractor Environmental Compliance Site Point of Contact

Michele L. Miller
2015.03.09 09:10:17 -04'00'

Michele Miller
LMS Contractor Site Lead

Date

Cliff Carpenter
LM Site Manager

5/11/15
Date

F. NEPA Determination

The proposed actions identified in this Environmental Checklist fit within the class of actions identified in 10 CFR 1021, Appendixes A and B to Subpart D. The proposed actions would fit within the following categories:

- B1.3 Routine maintenance
- B1.11 Fencing
- B1.24 Property transfers
- B3.1 Site characterization and environmental monitoring
- B6.1 Cleanup actions

Based on my review of the proposed actions, as the NEPA Compliance Officer (as authorized under DOE Order 451.1B), the following has been determined:

[X] The proposed actions meet the criteria for categorical exclusion and are excluded from further NEPA review.

[ ] The proposed actions do not meet the criteria for categorical exclusion; therefore, I recommend that the LM NEPA Planning Board be convened based on my recommendation (see attached rationale) to complete:

- [ ] an Interim Action.
- [ ] an Environmental Assessment.
- [ ] an Environmental Impact Statement.
- [ ] a Supplemental Analysis.

Tracy A. Ribeiro
2015.03.11 15:35:15 -06'00'

Tracy A. Ribeiro
LM NEPA Compliance Officer

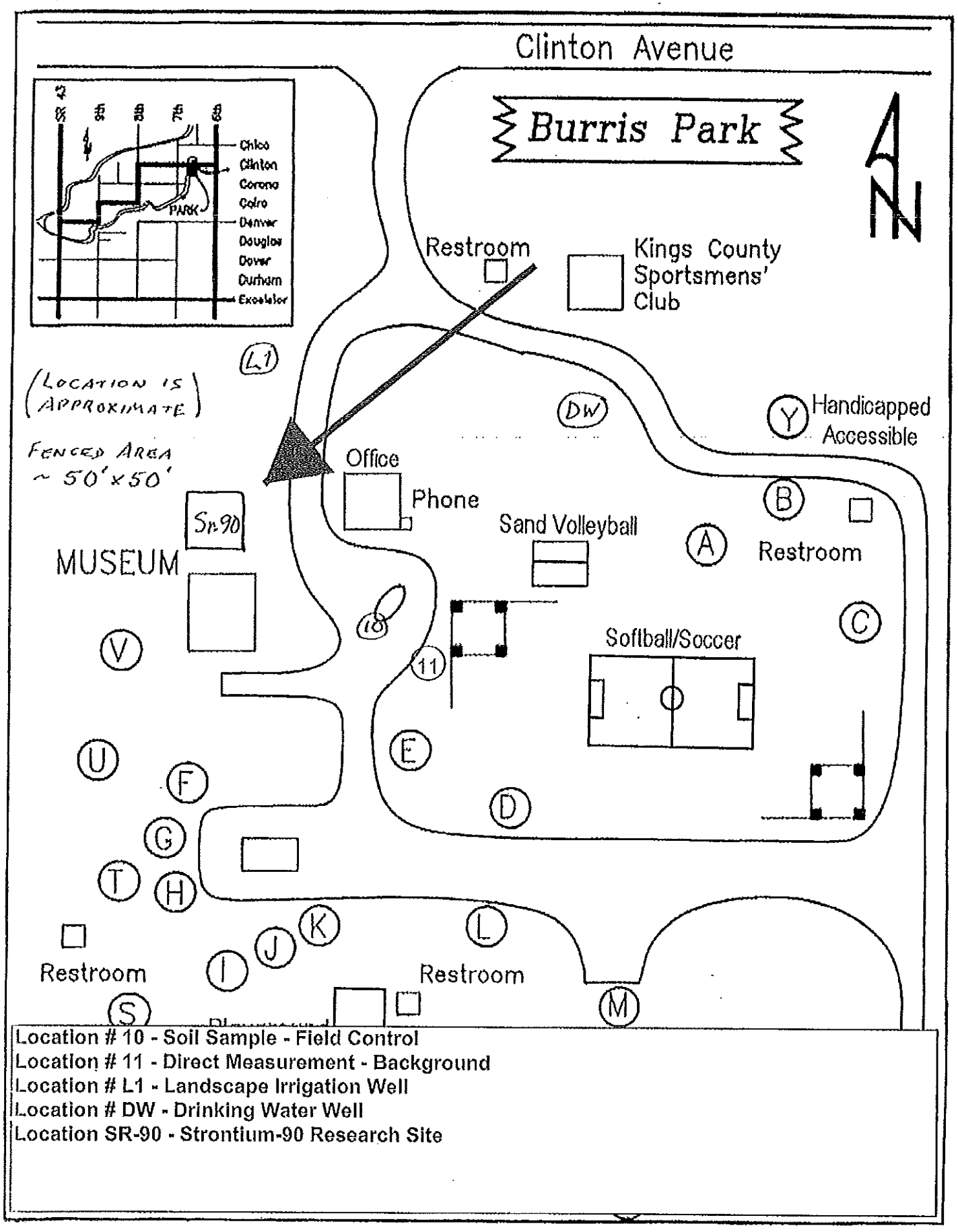
Date

Distribution upon signature:
All signatories

Sandy Beranich, SN3
Scott Osborn, SN3
Sara Woods, SN3
rc-grand.junction

Map 1 - Location of Sr-90 research field site

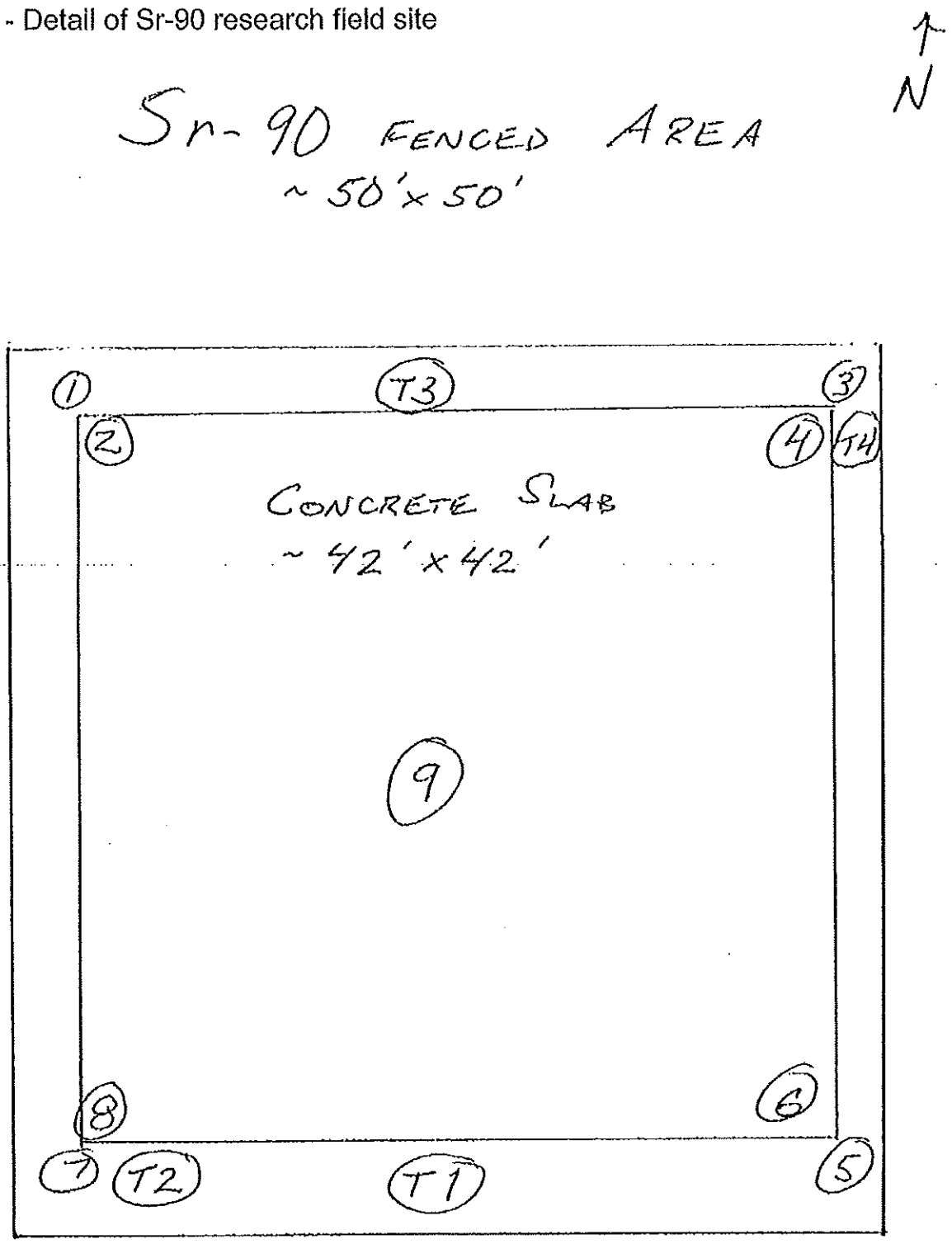
1 AUG 2013



Location # 10 - Soil Sample - Field Control
Location # 11 - Direct Measurement - Background
Location # L1 - Landscape Irrigation Well
Location # DW - Drinking Water Well
Location SR-90 - Strontium-90 Research Site

Field site detail on Map 2

Map 2 - Detail of Sr-90 research field site



Direct Measurements: Locations # 1-9

Soil Sampling: Locations # 1, 3, 5 & 7

Vegetation Sampling: Locations # T1 - T4

LOCATIONS ARE APPROXIMATE
NOT TO SCALE.

JD

Photo 5. Plot interior, looking north, Burris Park, CA, January 22, 2014

Photo 6. Northeast corner of slab, looking west, Burris Park, CA, January 22, 2014