CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

SAMPLING AND ANALYSIS PLAN FOR EXISTING MILK COW DAIRIES UNDER WASTE DISCHARGE REQUIREMENTS GENERAL ORDER NO. R5-2007-0035

PART I. DAIRY FACILITY INFORMATION

Name of Dairy or Business Operating the Dairy: _____

Physical address of Dairy:

_____
Number and Street City County Zip Code

PART II. DOCUMENTATION OF QUALIFICATIONS AND PLAN DEVELOPMENT

I certify that I meet the requirements as a certified specialist in developing nutrient management plans as described in Attachment C of Waste Discharge Requirements General Order No. R5-2007-0035 and that I prepared the Sampling and Analysis plan.

_____
QUALIFICATIONS OF CERTIFIED NUTRIENT MANAGEMENT SPECIALIST

_____
SIGNATURE OF TRAINED PROFESSIONAL DATE

_____
PRINT OR TYPE NAME

_____
MAILING ADDRESS

_____
PHONE NUMBER EMAIL ADDRESS

PART III. OWNER AND/OR OPERATOR CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

_____ _____
SIGNATURE OF OWNER SIGNATURE OF OPERATOR

_____ _____
PRINT OR TYPE NAME PRINT OR TYPE NAME

_____ _____
DATE DATE

SAMPLING AND ANALYSIS PLAN

This plan needs to be certified by a certified nutrient management specialist, maintained as part of the NMP, and included in the list of items completed in the July 1, 2008 Statement of Completion. The plan must be made available to Central Valley Water Board staff during their inspections of the dairy and submitted to the Executive Officer when requested by the Executive Officer.

SOLID MANURE SAMPLING AND ANALYSIS PLAN				
Minimum Sampling Frequency	**Sampling Method**	**Source Description (pond, corral, separator, or settling basin solids, or other)**	**Minimum Analyses**	
			Field	**Laboratory**
Each application to each land application area			Total weight (tons) applied and percent moisture	Percent Moisture
Once every two years				General minerals, including: calcium, magnesium, sodium, sulfur, chloride, and fixed solids
Twice per year				Total nitrogen, total phosphorus, total potassium, and percent moisture
Each offsite export of manure			Total weight (tons) exported	Percent moisture
Annually			Total dry weight (tons) manure applied annually to each land application area, and total dry weight (tons) manure exported offsite annually	

PROCESS WASTEWATER (LIQUID MANURE) SAMPLING AND ANALYSIS PLAN				
Minimum Sampling Frequency	**Sampling Method**	**Source Description (pond identification)**	**Minimum Analyses**	
			Field	**Laboratory**
Each application			Date applied and volume (gallons or acre-inches) applied	None
Quarterly during one application event			Electrical conductivity	Nitrate-nitrogen (only when pond is aerated), ammonium-nitrogen, total Kjeldahl nitrogen, total phosphorus, total potassium and total dissolved solids
Once every two years			None	General minerals, including: calcium, magnesium, sodium, bicarbonate, carbonate, sulfate, and chloride

SOIL SAMPLING AND ANALYSIS PLAN				
Minimum Sampling Frequency	**Sampling Method**	**Source Description (soil sampling locations)**	**Minimum Analyses**	
			Field	**Laboratory**
Once every five years from each land application area (can sample 20% per year)			None	Soluble phosphorus (Olsen)
Recommended: Spring pre-plant for each crop				0 to 1 foot: Nitrate-nitrogen and organic matter 1 to 2 foot: Nitrate-nitrogen
Recommended: Fall pre-plant for each crop			None	0 to 1 foot: Electrical conductivity, nitrate-nitrogen, soluble phosphorus, potassium, organic matter 1 to 2: Nitrate- nitrogen

PLANT TISSUE SAMPLING AND ANALYSIS PLAN				
Minimum Sampling Frequency	**Sampling Method**	**Source Description (land application area)**	**Minimum Analyses**	
			Field	**Laboratory**
At each harvest from each land application area			Total weight (tons) of harvested material removed from each land application area	Percent wet weight Total nitrogen, total phosphorus, and total potassium, fixed solids (ash) expressed on a dry weight basis
Mid-season, if necessary to assess need for additional nitrogen during the growing season (only if Discharger wants to add fertilizer in excess of 1.4 times the nitrogen expected to be removed by the harvested portion of the crop)				Total nitrogen, expressed on a dry weight basis

IRRIGATION WATER SAMPLING AND ANALYSIS PLAN[1]				
Minimum Sampling Frequency	**Sampling Method**	**Source Description (well or canal identification)**	**Minimum Analyses**	
			Field	**Laboratory**
Each irrigation event for each land application area			Volume (gallons or acre-inches)[2] applied and date applied	
One irrigation event during each irrigation season during actual irrigation events – for each irrigation water source (well and canal)				Electrical conductivity, total dissolved solids, and total nitrogen[3] Data collected to satisfy the groundwater monitoring requirements will satisfy this requirement for irrigation wells

[1] Irrigation water from each well source and canal that is used on all land application areas are to be monitored.
[2] Initial volume measurements may be the total volume for all land application areas. Actual volume measurements for each irrigation source for each land application area are to be recorded no later than July 1, 2011.
[3] In lieu of sampling the irrigation water, the Discharger may provide equivalent data from the local irrigation district.