

King Ranch, Inc./King Ranch Feedyard
Inspection Date 09/19/2022



Region 6 - Enforcement & Compliance Assurance Division
INSPECTION REPORT

Inspection Date(s):	09/19/2022	
Media Program:	Water	
Regulatory Program(s)	CAFO	
Company Name:	King Ranch, Inc.	
Facility Name:	King Ranch Feedyard (27.516069, -97.972834)	
Facility Physical Location:	On Hwy 141, 7 mi. west of Kingsville, TX	
(city, state, zip code)	Kingsville, TX 78364	
Mailing address:	P.O. Box 1090	
(city, state, zip code)	Kingsville, TX 78364-1090	
County/Parish:	Kleberg	
Facility Phone Number	361-595-5683 office	
Facility Contact:	Willie Pakebusch	Cattle Superintendent
	wpakebusch@king-ranch.com	
FRS Number:	110033861079	
Identification/Permit Number:	TXG920609	
Media Identifier Number:	N/A	
NAICS:	112112	
SIC:	0211	
Personnel participating in inspection:		
Willie Pakebusch	King Ranch Feedyard	Cattle Superintendent
Lucas Bomar	EPA/6ECAD-WA	Inspector
Juan Ibarra	EPA/6ECAD-WA	Inspector
EPA Lead Inspector Signature/Date		
	{Inspector name}	Date
Supervisor Signature/Date		
	{Supervisor name}	Date

Section I – INTRODUCTION**PURPOSE OF THE INSPECTION**

EPA Region 6 inspectors Juan Ibarra and Lucas Bomar arrived at the King Ranch Feedyard at 0910 on September 19, 2022, for an unannounced inspection. We met with Mr. Willie Pakebusch/Cattle Manager at the Opening Conference. I presented my credentials to Mr. Pakebusch and informed him that this was an EPA inspection to determine the facility's compliance status with the requirements of the Clean Water Act (CWA) and the Texas Pollutant Discharge Elimination System (TPDES) Concentrated Animal Feeding Operation (CAFO) regulations stipulated within the facility's Texas Commission on Environmental Quality (TCEQ) CAFO general permit. The scope of the inspection included a compliance evaluation of the facility's site operations, lagoon maintenance, nutrient management plan, and record keeping requirements of their permit. For biosecurity purposes, the inspectors toured the site in Mr. Pakebusch's vehicle and wore over-boots.

FACILITY DESCRIPTION

King Ranch Feedyard has a current TCEQ CAFO general permit for 20,000 total beef cattle. The original CAFO permit dates-back to 1994. On the day of the inspection the feedyard had 5,546 head of cattle. All the cattle are kept in open lot pens which are located within the watershed of an RCS. The feedyard has two RCS which operate in series, consisting of a constructed lagoon (RCS 1) and a playa lake (RCS 2) which are shown in the Appendix 1 photolog (photos 1-3). RCS 1 has a capacity of 8.3 acre-feet and RCS 2 has a capacity of 309.2 acre-feet. Both RCSs have the original certifications from 2/10/1994 by Ben Weinheimer, P.E., and the required 5-year certification for RCS 1 made on 5/10/2018 (also by Mr. Weinheimer). The TCEQ CAFO general permit does not require a playa lake to be re-certified every 5 years. The original RCS2 playa lake materials certification is attached in Appendix 2 and was certified on 2/10/1994.

The facility has seven (7) land management units (LMUs). LMU 1 has 138 acres, LMU 2 has 343 acres, LMU 3 has 361 acres, LMU 4 has 1970 acres, LMU 5 has 400 acres, LMU 6 has 180 acres and LMU 7 has 253 acres. The feedyard grows silage sorghum on LMU 4 which they cut once a year and store as silage feed within a silage bunker. They also grow Coastal bermuda and buffelgrass on the other LMUs which are primarily grazed by other cattle that are kept on pasture. Only manure solids are land applied by manure spreader using a hired third party, and in the past 33 years (since Mr. Pakebusch has worked at King Ranch) the facility has never land applied wastewater as evaporation has been sufficient to manage the wastewater levels. However, the facility did have a discharge when it received 9.1" of rain on 6/21/2018 (the 25-yr/24-hr rain event is 8.5"). The facility does have access to irrigation equipment should it be needed.

The Texas Cattle Feeders Association (TCFA) prepared and manages the pollution prevention plan which serves as the nutrient management plan (NMP). The TCFA also takes the annual LMU soil samples and manure analysis, as well as track the two freshwater wells which they sample annually for Nitrate/Nitrite levels. The TCFA provides a phosphorus-based land application recommendation for the feedyard's LMUs based on either a single year or multi-year application, and the last manure applications occurred in early

2022 through April 2022.

Pens are scrapped annually and are properly sloped to the RCSs. Both RCSs are fenced-off and have a pole marker. Mortalities are buried on-site next to LMU 1.

Section II – OBSERVATIONS

The feedyard has two issues that were noted during the inspection:

First, the RCS 2 playa lake has a significant number of large trees growing within the RCS. Photo 3 of the photolog found in Appendix 1 shows the pole marker for RCS 2 located within a wooded area of RCS 2. Also note the feedyard aerial photographs and topographic maps found in Appendix 1 showing the location of RCS 2 relative to the cattle pens and the trees within RCS 2.

The USGS topographic maps found in Appendix 1 show the playa lake formation from 1979 (prior to the existence of the feedyard which was first permitted in 1994). This topographic map shows the surrounding elevations around the playa lake which are higher than that of the playa lake. There is also a topographic map from 2022 showing the playa lake RCS relative to the approximate locations of the cattle pens.

Finally, the historical aerial photographs from Google Earth contained in Appendix 3 shows the varying degrees of tree cover and growth over a period of 20 years, from 1995 to 2015. In 1995 the playa lake is covered with trees. Then in 2003 all the trees have been removed. In 2011 and 2015 a few of the trees are growing back, and as shown in the photolog (photo 3) and 2022 DigitalGlobe aeriels the trees are again becoming established within RCS 2.

Second, there was a discharge of silage leachate from the silage bunker that flowed into an open pasture which did not appear to discharge into the watershed of an RCS. See photos 4 and 5.

No other issues were found during the inspection as it appeared that the slopes and berms channeling wastewater runoff from the pens appeared to be well maintained and the facility was appropriately land applying manure solids at an agronomic rate.

Section III – AREAS OF CONCERN

AOC 1: RCS 2 (the playa lake) is located within a heavily wooded area. Prior Google Earth photos obtained from 1995, 2003, 2011, and 2015 show the playa lake conditions over time. In 1995, the year after the CAFO was first permitted by the TCEQ (its predecessor agency TNRCC), the RCS 2 playa lake was heavily wooded (see Appendix 3 – Historical Google Earth Aerials of RCS 2 Playa Lake). Then in 2003 the aerial shows the playa lake to be devoid of trees. In 2011 and 2015 the playa lake was beginning to grow back trees on the eastern side of the RCS and a few in the center by the water. Otherwise, most of the RCS 2 playa lake was devoid of trees. Trees have continued to spread and grow up to the time of the inspection as shown in the photolog and aerials contained within Appendix 1. Part III.A.10.(f).(3) of the TCEQ CAFO general permit states that “No tree shall be allowed to grow such that the root zone would intrude or compromise the structure of the liner or embankment.”

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AOC 2: There was a discharge of silage leachate going into a large pasture at the time of the inspection. Per Part III.4.(a) of the TCEQ CAFO general permit, Potential pollutant sources include "...silage stockpiles...". Furthermore, "An evaluation of potential pollutant sources shall identify the sources, "and indicate all measures that will be used to prevent contamination from the pollutant sources." Also, per Part III.5.(a).(2). "Manure, sludge, and wastewater generated by a CAFO shall be retained and used in an appropriate and beneficial manner as provided in this general permit." Additionally, the facility NMP requires that production area runoff be discharged into an RCS.

Section IV – FOLLOW UP

None.

Section V – LIST OF APPENDICES

Appendix 1 – Photo Log – Five photos taken 9/19/2022, aerial photographs / significant photos, site map provided by King Ranch, and the 2022 & 1979 USGS topographic maps

Appendix 2 – 1994 RCS 2 Playa Lake Certification and Atterberg Soils Analysis

Appendix 3 – Historical Google Earth Aerials of RCS 2 Playa Lake

Appendix 1

Photograph Log, Site Aerials with Significant Photos
and
USGS Topographic Maps



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 1

Location: King Ranch Feedyard		
City: Kingsville	County: Kleberg	State: Texas



Photo File Name: P9190001.JPG

Date of Photo: 09/19/2022

Time of Photo: 1254

Photographer: Lucas Bomar

Description: Looking east at RCS 1. Unit has a pole marker and no trees are growing on the embankment.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 2

Location: King Ranch Feedyard		
City: Kingsville	County: Kleberg	State: Texas



Photo File Name: P9190002.JPG

Date of Photo: 09/19/2022

Time of Photo: 1257

Photographer: Lucas Bomar

Description: Looking northeast at RCS 1 and the drainage channel (the brown colored ditch) leading from the production area (pens and feed mill) to the RCS. No trees are growing on the embankment. The embankments are well covered in vegetative grasses (buffelgrass) with no indications of erosion.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 3

Location: King Ranch Feedyard		
City: Kingsville	County: Kleberg	State: Texas



Photo File Name: P9190003.JPG

Date of Photo: 09/19/2022

Time of Photo: 1300

Photographer: Lucas Bomar

Description: RCS 2 is a playa lake with large trees. The unit has a pole marker and the playa lake is significantly wooded. The view is toward the west-southwest.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 4

Location: King Ranch Feedyard		
City: Kingsville	County: Kleberg	State: Texas



Photo File Name: P9190004.JPG

Date of Photo: 09/19/2022

Time of Photo: 1309

Photographer: Lucas Bomar

Description: The silage storage bunker had a discharge of dark liquor that was running off-site. The view is toward the west-northwest.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 5

Location: King Ranch Feedyard		
City: Kingsville	County: Kleberg	State: Texas



Photo File Name: P9190005.JPG

Date of Photo: 09/19/2022

Time of Photo: 1310

Photographer: Lucas Bomar

Description: The discharging leachate from the silage storage bunker is discharging thru a ditch into a ponded area in an open pasture. It does not appear that this discharge goes into the drainage area of an RCS. The view is toward the east-southeast.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 6

Location: King Ranch Feedyard		
City: Kingsville	County: Kleberg	State: Texas

King Ranch Feedyard DigitalGlobe aerial from 6/27/22, significant photo locations





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 7

Location: King Ranch Feedyard		
City: Kingsville	County: Kleberg	State: Texas

King Ranch Feedyard DigitalGlobe aerial from 6/27/22, RCS 2 close-up view





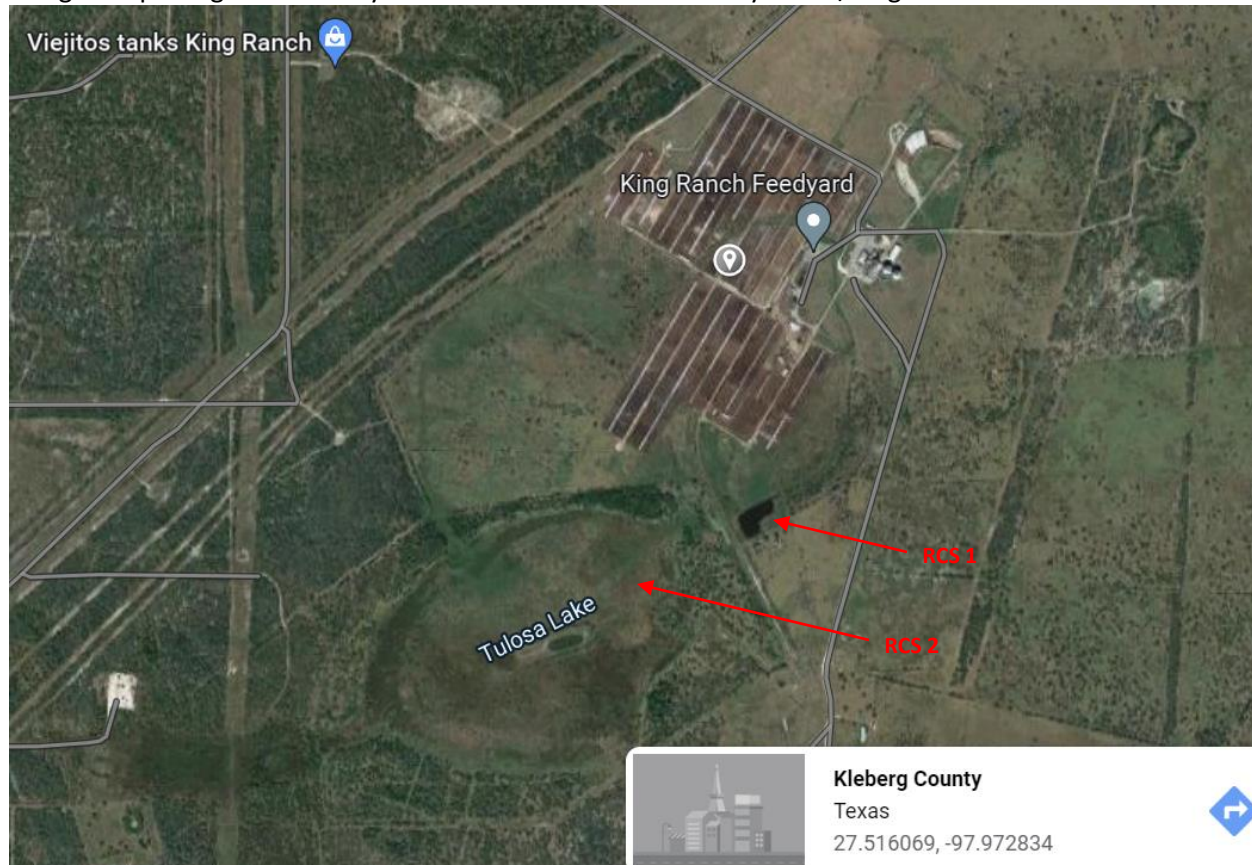
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 8

Location: King Ranch Feedyard		
City: Kingsville	County: Kleberg	State: Texas

Google Maps King Ranch Feedyard RCS site locations and feedyard lat/long



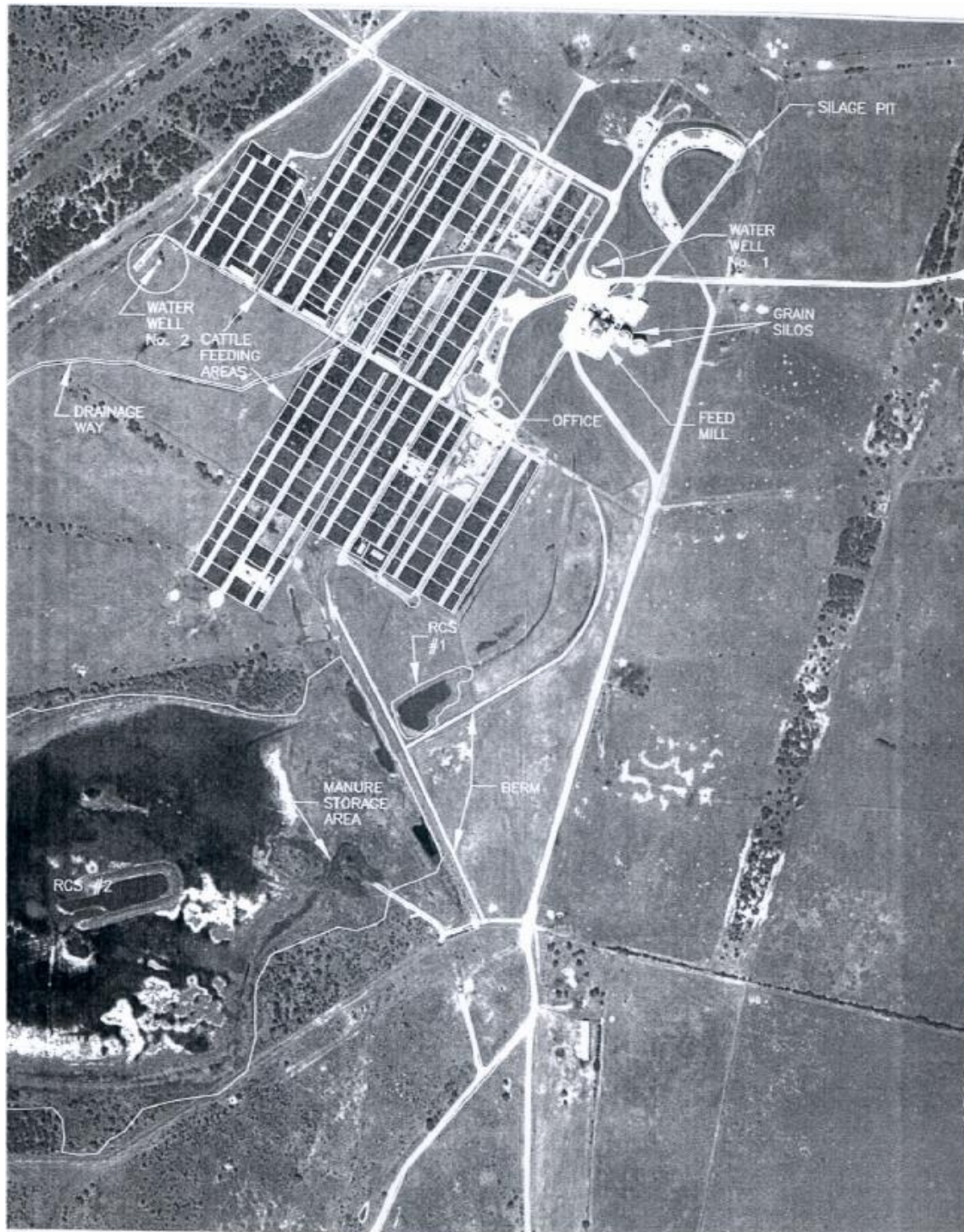


UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Photograph Log

Photo No. 9

Location: King Ranch Feedyard		
City: Kingsville	County: Kleberg	State: Texas

Map of the King Ranch Feedyard provided after the inspection by King Ranch showing monitoring/water well locations and other features





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 10

Location: King Ranch Feedyard		
City: Kingsville	County: Kleberg	State: Texas

King Ranch Feedyard from 2022 USGS Kingsville West Topographic Map





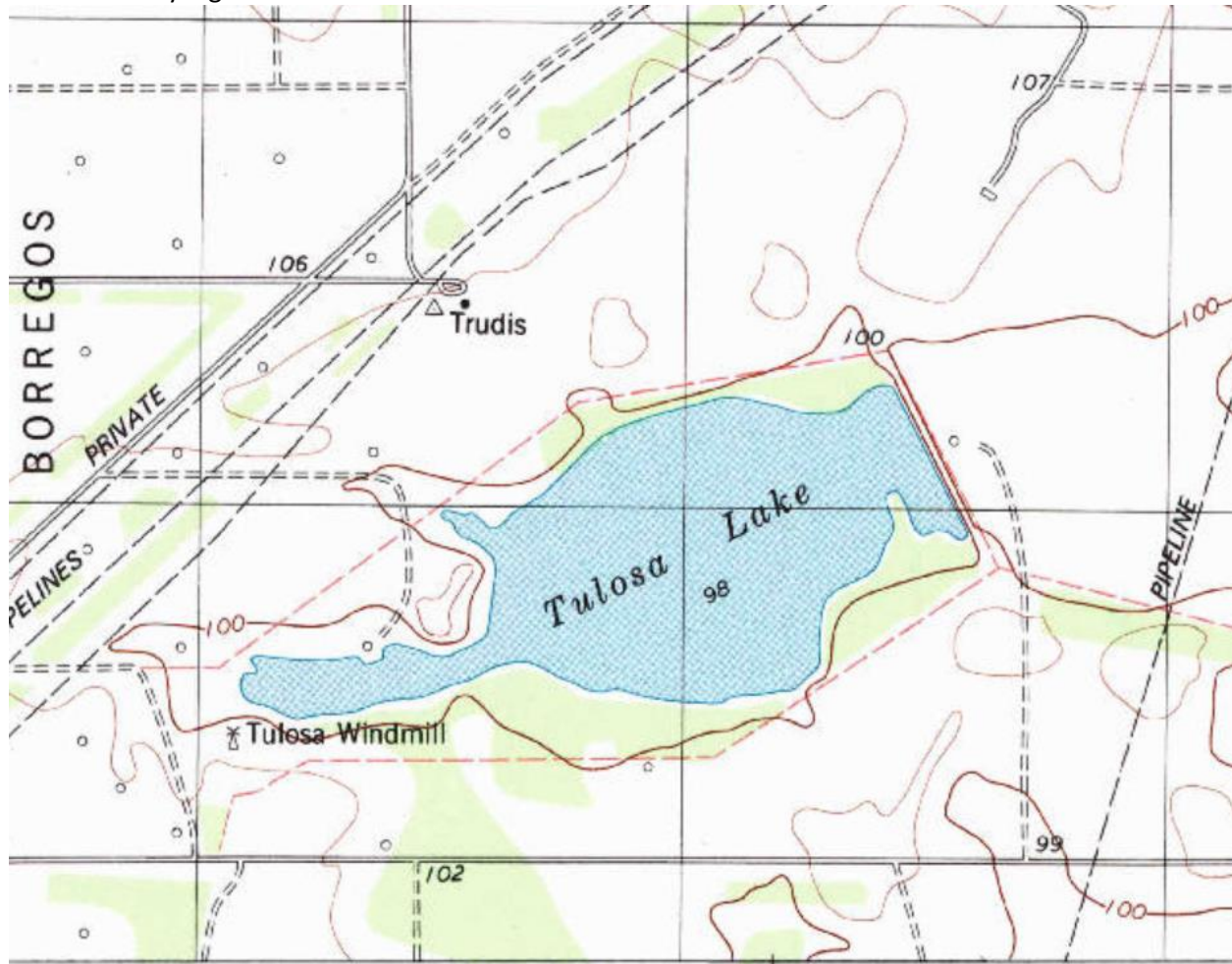
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 11

Location: King Ranch Feedyard		
City: Kingsville	County: Kleberg	State: Texas

1979 USGS Topographic Map prior to the permitting of the feedyard in 1994. The playa lake is surrounded by higher elevation land.



Appendix 2

1994 RCS 2 Playa Lake Certification and Atterberg Soils Analysis

ENGINEERING DOCUMENTATION

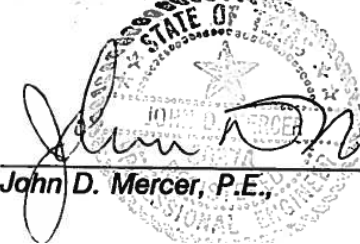
After careful review of the site and data collected at King Ranch Feedyard, I have determined that a liner is not needed to prevent leakage of significant amounts of pollutants via perched or groundwater into surface waters of the United States.

The data includes soils tests, recorded soil thickness, and a well log indicating the depth of local groundwater.

The soils test indicates that the in situ soil properties are indicative of having a low permeability rate when combined with biological seals. During the on-site investigation, a trench was examined in close proximity to the two waste retention facilities. The in situ clay was a minimum of three feet thick. Data from the well log indicates that a clay strata extends to a depth of approximately thirty feet. The well log indicates a static water level approximately 225 feet below the ground surface.

The characteristics of the soil strata from 0 to 30 feet in depth provides adequate protection to any perched groundwater, or aquifer located below the site.

In conclusion, the soil characteristics and depth to groundwater precludes leakage of significant amounts of pollutants to waters of the United States.


John D. Mercer
John D. Mercer, P.E., 2/10/94



TRINITY ENGINEERING TESTING CORPORATION

P.O. BOX 4293 CORPUS CHRISTI, TEXAS 78469 512/854-4774

TO: King Ranch Feed Yard
P. O. Box 1090
Kingsville, Texas 78364-1090
Attn: Richard Bretz, Mktg. & Feedyard Manager

PROJECT: Pond Material
P.O. #36772

TECH: Jimmy Imhoff

DATE: November 18, 1993
REPORT NO.: 931734

REPORT ON: Dark Grey Sandy Clay Delivered to Laboratory on November 15, 1993.
TEST METHODS: ASTM-D-4318, D-1150

RESULTS:

ATTERBERG LIMIT

	#1 <i>N. Tuloza</i> 1'	#2 <i>So. Central</i> 10" - 15"	#3 <i>West of Diversion</i> 6" - 10"
Liquid Limit	21	51	38
Plastic Limit	11	21	18
Plasticity Index	10	30	20
Material Passing #200 Sieve	35.0%	69.5%	50.7%

COPIES TO:

2-Above

Jerry Lipstreu

The results shown on this report are for the exclusive use of the client for whom they were obtained and apply only to the samples tested and/or inspected. They are not intended to be indicative of condition of apparently identical products. The use of our name must receive prior written approval.



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TO: King Ranch Feed Yard
P. O. Box 1090
Kingsville, Texas 78364-1090
Attn: Richard Bretz, Mktg. & Feedyard Manager

PROJECT: Pond Material

TECH: Steve Smitham

DATE: December 15, 1993
REPORT NO.: 931837

REPORT ON: Dark Grey Sandy Clay Delivered to Laboratory on December 9, 1993.
TEST METHODS: ASTM-D-4318, D-1140

RESULTS:

ATTERBERG LIMIT

	<i>Tulosa North #4 12" - 16"</i>	<i>A-Alley #6 15" - 20"</i>	<i>Tulosa #5 3" - 6"</i>
Liquid Limit	22	32	49
Plastic Limit	12	16	23
Plasticity Index	10	16	26
Material Passing #200 Sieve	30.4%	39.7%	33.2%

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Liquid Limit	22	32	49
Plastic Limit	12	16	23
Plasticity Index	10	16	26
Material Passing #200 Sieve	30.4%	39.7%	33.2%

*#4 & #5 are at different depths of the same
location and are at the same location as
sample #1*

COPIES TO:

2-Above

Jerry Lipstreu

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Appendix 3

Historical Google Earth Aerials of RCS 2 Playa Lake

