ANNUAL INSPECTION OF CCR UNITS

Oak Grove Steam Electric Station
Robertson County, Texas

Submitted To: Luminant Power
6555 Sierra Drive
Irving, TX 75039

Submitted By: Golder Associates Inc.
500 Century Plaza Drive, Suite 190
Houston, TX 77073 USA

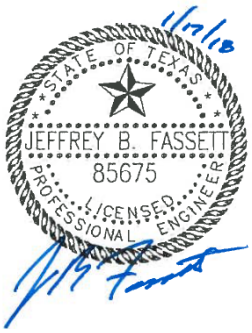
January 2018

1782004

Golder Associates

CERTIFICATIONS

I hereby certify that this report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state of Texas.



Jeffrey B. Fassett, PE

January 17, 2018
Date

Golder Associates Inc.
F-2578

EXECUTIVE SUMMARY

The United States Environmental Protection Agency (EPA) promulgated the Resource Conservation and Recovery Act (RCRA) Coal Combustion Residuals (CCR) Rule (Rule) on April 17, 2015. The Rule requires owners or operators of existing CCR surface impoundments and landfills to have those units inspected on an annual basis by a qualified professional engineer in accordance with 40 CFR §257.83(b) §257.84(b).

Golder Associates Inc. (Golder) was retained by Luminant Power to perform the annual inspection of the CCR units at the Oak Grove Steam Electric Station located near Franklin, Robertson County, Texas.

The inspection included the following:

- Review of applicable information regarding the status and condition of each CCR unit
- A visual inspection of each CCR unit to identify signs of distress or malfunction of the CCR unit and appurtenant structures
- A visual inspection of hydraulic structures underlying the base of each CCR unit or passing through the dike of each CCR unit for structural integrity and continued safe and reliable operation

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1.0 INTRODUCTION

The U.S. Environmental Protection Agency (EPA) published the final rule governing the disposal of coal combustion residuals (CCR) as solid waste regulated under Subtitle D of the Resource Conservation and Recovery Act (RCRA) on April 17, 2015, with an effective date of October 19, 2015. The CCR Rule establishes national minimum criteria and new CCR management obligations for existing, new, and lateral expansions of CCR disposal units. One of the new obligations pertains to inspections, specifically; CCR unit owners/operators must initiate the following activities:

- weekly inspections and monthly instrument monitoring of CCR Units by October 19, 2015; and
- annual inspections of CCR units by January 18, 2015.

This report presents the results of the 2017 annual inspection of the CCR units at the Oak Grove Steam Electric Station (SES) conducted to comply with §257.83 and §257.84 of the CCR Rule.

In accordance with §257.83(b)(1)(ii) and (iii) and §257.84(b)(1)(ii), a visual inspection was conducted on November 16, 2017. The objectives of the inspection are:

- to identify signs of distress or malfunction of each CCR unit and appurtenant structures; and
- to assess the structural integrity and continued safe and reliable operation of hydraulic structures underlying the base of each surface impoundment.

In accordance with §257.83(b)(2) and §257.84(b)(2), this inspection report has been prepared by a qualified professional engineer documenting the points listed above, and identifying the following since the previous annual inspection:

- any changes in geometry of the structure;
- location and type of existing instrumentation and the maximum recorded readings of each instrument (CCR surface impoundments only);
- the approximate minimum, maximum, and present depth/elevation of impounded water and CCR (CCR surface impoundments only);
- the storage capacity of the impounding structure at the time of inspection (CCR surface impoundments only);
- approximate volume of impounded water and/or CCR;
- any appearances of actual or potential structural weakness of the CCR unit; and
- any other changes which may have affected the stability or operation of the structure since the previous annual inspection.

2.0 FACILITY DESCRIPTION

The Oak Grove SES is located near Franklin, Robertson County, Texas. The 1,600 MW SES burns lignite mined at the Luminant Kosse Mine, located approximately 5 miles north of the facility.

The following CCR units are present at the site.

- CCR surface impoundments;
  - FGD-A Pond
  - FGD-B Pond
  - FGD-C Pond
- CCR landfill:
  - Ash Landfill 1

Coal combustion byproducts such as fly ash, bottom ash, gypsum/scrubber sludge, and process wastewater are being generated during operation. Gypsum/scrubber sludge that cannot be recycled and selected process wastewaters are currently managed in FGD-A, FGD-B, and FGD-C Ponds. All fly ash and bottom ash generated at the facility is handled in a dry manner and deposited in Ash Landfill 1, other than that amount that is sold/beneficially used in accordance with the CCR regulation.

The locations of the surface impoundments and landfill are shown on Figure 1.

3.0 REVIEW OF OPERATIONAL RECORDS

The CCR Rule (§257.83(b)(1)(i) and §257.84(b)(i)) requires a review of information regarding the status and condition of each CCR unit, including the following items.

- Design and construction information.
- Previous periodic structural stability assessments (CCR surface impoundments only).
- Results of weekly inspections and monthly instrumentation monitoring by a qualified person.
- Results of previous annual inspections.
- Other operating records.

As part of this annual inspection, Golder reviewed the following documents:

- History of Construction, CCR Surface Impoundments, Oak Grove SES, Golder Associates Inc., October 2016.
- TCEQ Registration Package, Oak Grove Steam Electric Station, FGD-C Pond, Golder Associates Inc., June 2015.
- Structural Stability Assessment Report, Oak Grove Steam Electric Station, Golder Associates Inc., October 2016.
- Safety Factor Assessment Report, Oak Grove Steam Electric Station, Golder Associates Inc., October 2016.
- Previous annual inspection reports:
  - Golder Associates Inc., January 2016.
  - Golder Associates Inc., January 2017.
- 7-Day Inspection Checklists.
- Water level readings.

Annual CCR inspection reports for Ash Landfill 1 were prepared for inspections during 2015 and 2016. An annual CCR inspection report was prepared for the FGD-A and FGD-B ponds in 2015; however, since the 5-year structural stability assessment was performed for the ponds during 2016, an inspection report was not prepared for 2016. FGD-C was not operational until 2016; therefore, this is the first annual inspection report addressing FGD-C.

4.0 VISUAL INSPECTION OF CCR UNITS

In accordance with §257(b)(1)(ii)-(iii) and §258(b)(1)(ii), a visual inspection of the surface impoundments and landfill was conducted on November 16, 2017 by Jeffrey B. Fassett and by Varenya Kumar. Both Mr. Fassett and Varenya Kumar are registered professional engineers in the State of Texas. Larry Johnston and Kim Eiman of Luminant accompanied Mr. Fassett and Mr. Kumar during the inspection.

Prior to conducting the visual inspection, Luminant provided checklists from the 7-day inspections and daily freeboard levels in the ponds. In addition, the objectives of the visual inspection and safety concerns were discussed.

No conditions with the potential to result in structural weakness of the impoundment embankments or that could potentially disrupt the operation and safety of the impoundments were reported in the 7-day inspections. Recommended action items were limited to routine maintenance of that do not currently have the potential to result in structural weakness or disrupt the operation and safety of the impoundments and landfill.

Field checklists and maps of each CCR unit were used to record the findings. Photographs were taken to provide an additional record. The checklists and photographs are included in Appendix A and B, respectively.

The recommendations from the previous annual CCR inspection reports and the status of activities to address the recommendations at the time of the 2017 Annual CCR Inspection can be summarized as follows:

CCR Unit	Previous Recommendation	Current Status
FGD-A (2015 Inspection)	Grade crest to prevent ponding and rutting on crest	Rutting less pronounced but erosion due to ponding water visible along east crest.
	Avoid mowing west downstream slope during wet periods to avoid forming ruts	Ruts appear to be less pronounced.
	Animal burrows present. Consider animal control program.	Fewer animal burrows present but more hog rooting present. Animal control program is on-going.
FGD-B (2015 Inspection)	Wave action erosion present on upstream slope. Consider alternate erosion protection.	Much of the upstream slope has been regraded. Wave action and erosion rills due to surface water runoff from crest present.
	Erosion rills present in recently planted areas and high	Grass cover good throughout. Isolated areas with vegetation exceeding 6 inches.

CCR Unit	Previous Recommendation	Current Status
	vegetation observed along southern embankment.	
	Animal burrows present. Consider animal control program.	Fewer animal burrows present but more hog rooting present. Animal control program is on-going.
Ash Landfill 1 (2016 Inspection)	Erosion was observed in recently repaired or recently constructed areas of the embankment. Repair areas.	Grass cover has improved but erosion still present. Some reseeded areas still not growing well.
	Significant hog rooting observed. Identify what hogs are rooting for.	Hog rooting continues to be an issue.
	Vegetation present on upstream slope protective cover. Check root depth and remove it they exceed 1 foot.	Vegetation present on exposed upstream slopes and Cell 4 floor.
	Ponding due to rutting and blocked drop boxes. Increase maintenance of drop boxes.	Conditions improved.
	Seepage eroding soil below woven geotextile in the concrete block-lined downchute on lower bench of Cell 3. Monitor.	No changes noticed.

A summary of the 2017 inspection findings and items recommended for repair or maintenance is provided in Table 2.

5.0 INSPECTION REPORT

Table 1 provides information for each of the items listed in §257.83(b)(2) and §258.84(b)(2), related to the inspection report.

Table 1: CCR Unit Information

Item	FGD-A Pond	FGD-B Pond	FGD-C	Ash Landfill 1
Changes in Geometry	None Additional piping is present east of the eastern embankment.	Soil cover on upstream slope regraded		Cell 2 has reached capacity.
Maximum Instrumentation Readings (1)	N/A	N/A	N/A	N/A
Approx. Min., Max., and Present Impounded Water Elev.	Max. = 444.3 ft Min. = 436.4 ft Present = 442.5 ft	Max. = 424.8 ft Min. = 416.3 ft Present = 421.4 ft	Max. = 461.9 ft Min. = 453.7 ft Present = 458.6 ft	N/A
Approximate Volume of water/CCR in Unit (2), (3)	Approx. 200,000 cy	Approx.80,000 cy	Approx. 300,000	Approx. 9.5 million cy
Approximate Storage Capacity	Approx. 230,000 cy	Approx. 150,000 cy	Approx. 350,000 cy	N/A
Observed Structural Weakness of the CCR Unit	None	None	None	None
Changes That Affect Stability or Operation of the CCR Unit	None	None	None	None

Notes:
1. No instrumentation is in place to monitor structural stability in the CCR units.
2. Volumes of CCR in FGD Ponds estimated based on field observations.
3. Volume of CCR in Ash Landfill 1 from Luminant.

Between January 4 and February 23, 2017, the water level in FGD-A exceeded the maximum operation elevation by as much as 0.7 feet.

6.0 SUMMARY OF FINDINGS AND RECOMMENDED ACTIONS

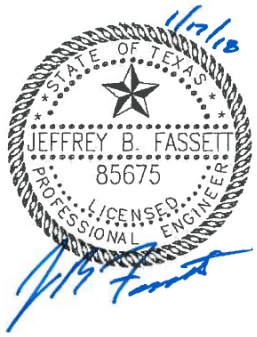
Based on observations made on November 16, 2017, the overall condition of the three surface impoundments and ash landfill is good. No structural weaknesses or safety issues were observed within the embankments. In addition, there were no signs of problems within the hydraulic structures underlying the base of the surface impoundments that could adversely affect the integrity and continued safe and reliable operation.

A summary of the findings and items recommended for repair or maintenance is provided in Table 2.

7.0 CLOSING

This report has been prepared in general accordance with normally accepted civil engineering practices to fulfill reporting requirements in accordance with 40 CFR 257.83(b) and 257.84(b). Based on our review of the information provided by Luminant and on our on-site inspection, the overall condition of the surface impoundments and ash landfill is good.

GOLDER ASSOCIATES INC.



William E. Gordon, PE
Senior Engineer

Jeffrey B. Fassett, PE
Associate Geotechnical Engineer

JBF/VK/

TABLES

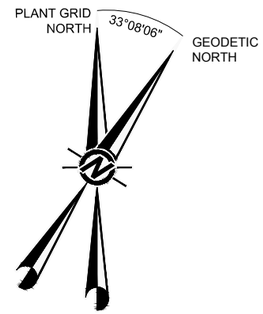
Table 2: Summary of Findings and Recommendations

CCR UNIT	Component	Condition * (Good/ Fair/ Poor)	Actions Since Last Inspections and Other Observations and Remarks	Photograph	Severity * (Minor/ Moderate/ Severe)	Further Actions and Recommendations
FGD-A Pond	U/S Slope	Fair	Erosion due to wave action and surface water runoff from crest is present along north and east slopes.	8	Minor	Continue to monitor.
	Crest	Fair	There are areas of rutting and minor ponding. Erosion due to standing water near southeast.	1, 11	Moderate	Consider grading to drain toward downstream slope. Keep vehicles off crest after storm events.
	D/S Slope	Good	Good grass cover on all areas except in hog rooting areas. Isolated areas with grass > 6 inches.	21, 22, 27	Minor	Continue to monitor.
			Fewer animal burrows visible. Hog damage much more severe.	20, 25, 26	Moderate	Continue to monitor and repair. Investigate more effective methods to control hogs.
	Inlet Pipes	Fair	Solids above the waterline around the inlet. Small depression above one inlet pipe.	1, 24	Minor	No action required. Continue to monitor.
	Outlet Pipes	Good	Pipes added to connect to FGD-C.	13		
FGD-B Pond	U/S Slope	Fair	The upstream slope has been regraded. Erosion rills forming due to surface water runoff.	31, 32	Moderate	Consider grading to drain toward downstream slope. Consider alternate erosion protection: e.g. gravel-filled geowebbing, more robust erosion control matting (HydroTurf).
			Small scarp above inlet from FGD-A.	35	Minor	Monitor.
	Crest	Good	There are areas of rutting and minor ponding, e.g. in northeast corner.	29	Minor	Keep vehicles off crest after storm events.
	D/S Slope	Good	Good grass cover on all areas except in hog rooting areas. Isolated areas with vegetation > 6 inches.	37- 43	Moderate	Continue to monitor.
			Two animal burrows visible -- improvement over last inspection. Hog rooting more severe.		Moderate	Continue to monitor and repair. Investigate more effective methods to control hogs.
FGD-C Pond	U/S Slope	Good	Upstream slope lined with cementitious fly ash. Minor erosion primarily due to surface water runoff	45, 49	Minor	
	Crest	Good	Crest covered with crushed gravel.	48	Minor	
	D/S Slope	Good	Good grass cover on all areas except near toe of west and southwest slope. Isolated areas with grass > 6 inches.	69, 44	Minor	Continue to monitor.
			Several animal burrows visible. Some hog rooting visible.		Minor	Continue to monitor and repair. Investigate more effective methods to control hogs.
	Inlet Pipes	Good	11 inlets pipes along SE portion of pond.	47		
	Outlet Pipes	Good	Upstream end submerged. Downstream end observed.	64		

FIGURES

REFERENCE(S)

AERIAL PHOTO SOURCED FROM GOOGLE EARTH PRO DATED OCTOBER 2014



0 400 800

1" = 800' FEET

CLIENT
LUMINANT POWER

CONSULTANT
Golder Associates

YYYY-MM-DD	2018-01-05
DESIGNED	VK
PREPARED	TNB
REVIEWED	WEG
APPROVED	JBF

PROJECT
2017 COAL COMBUSTION RESIDUALS
ANNUAL INSPECTION

TITLE
OAK GROVE SES
GENERAL SITE MAP

PROJECT NO. 1782004 | REV. 0 | FIGURE 1

APPENDIX A
INSPECTION CHECKLISTS

OAK GROVE SES

IMPOUNDMENT: FGD-A Pond **INSPECTION DATE: 11/16/2017**

AREA INSPECTED	EMBANKMENT 1 of 2		
	ITEM NO.	CONDITION	OBSERVATIONS
CREST	1	SURFACE CRACKING	None
	2	CAVE IN, ANIMAL BURROWS	None
	3	LOW AREA(S)	None
	4	HORIZONTAL ALIGNMENT	Good
	5	RUTS AND/OR PUDDLES	Minor, up to 4-inch rut depth in northwest and northeast and minor ponding in northeast
	6	VEGETATION CONDITION	None, gravel or bare soil
	7	TREES	None
	8	OTHER	Erosion due to standing water in southeast.
UPSTREAM SLOPE	9	SLIDE, SLOUGH, SCARP	None
	10	SLOPE PROTECTION	Gravel placed on southern slope. Geomembrane and riprap at dividing dike.
	11	SINKHOLE, ANIMAL BURROW	None observed
	12	EMB.-ABUT. CONTACT	NA
	13	EROSION	Erosion due to surface water and wave action present
	14	VEGETATION CONDITION	No vegetation on southern slope
	15	TREES	None
	16	OTHER	

ADDITIONAL COMMENTS: Consider regrading crest to drain to downstream slope to reduce erosion on upstream slope.

IMPOUNDMENT: FGD-A Pond **INSPECTION DATE: 11/16/2017**

AREA INSPECTED	EMBANKMENT 2 of 2		
	ITEM NO.		OBSERVATIONS
DOWNSTREAM SLOPE	17	WET AREAS	None
	18	SEEPAGE	None
	19	SLIDE, SLOUGH, SCARP	None
	20	EMB.-ABUT. CONTACT	Good
	21	CAVE IN, ANIMAL BURROW	Fewer burrows than previously observed. Hog damage much more severe
	22	EROSION	Minor
	23	UNUSUAL MOVEMENT	None
	24	VEGETATION CONTROL	Good grass cover except for areas with hog damage. Isolated areas with vegetation > 6 inches.
	25	BENCH	NA
	26	OTHER	
INSTRUMENTATION	27	PIEZOMETERS/OBSERV. WELLS	NA
	28	STAFF GAUGE AND RECORDER	NA. Freeboard measured manually.
	29	WEIRS	NA
	30	SURVEY MONUMENTS	NA
	31	DRAINS	NA
	32	FREQUENCY OF READINGS	Freeboard measurements 1 to 4 days

ADDITIONAL COMMENTS:

IMPOUNDMENT: FGD-A Pond **INSPECTION DATE: 11/16/2017**

HYDRAULIC STRUCTURES

1 of 1

AREA INSPECTED	ITEM NO.	CONDITION	OBSERVATIONS
OUTLET WORKS	33	INLET PIPES	Two new pipes between FGD-A pump station to FGD-C installed. Small depression above HDPE pipe. Inlets submerged.
	34	TRASHRACK	NA
	35	STILLING BASIN	NA
	36	PRIMARY CLOSURE	NA
	37	SECONDARY CLOSURE	NA
	38	CONTROL MECHANISM	One valve to discharge pipe to FGD-B
	39	OUTLET PIPE	Pipe between FGD-A pump station to FGD-B installed. Numerous pipes between plant to FGD-C installed south of FGD-A.
	40	OUTLET TOWER	NA
	41	EROSION ALONG DAM TOE	None
	42	SEEPAGE	None observed. Standing water on pump station pad appears to be from pumps.
	43	UNUSUAL MOVEMENT	None
	44	OTHER	

ADDITIONAL COMMENTS:

OAK GROVE SES

IMPOUNDMENT: FGD-B Pond **INSPECTION DATE: 11/16/2017**

AREA INSPECTED	EMBANKMENT 1 of 2		
	ITEM NO.	CONDITION	OBSERVATIONS
CREST	1	SURFACE CRACKING	None
	2	CAVE IN, ANIMAL BURROWS	None
	3	LOW AREA(S)	None
	4	HORIZONTAL ALIGNMENT	Good
	5	RUTS AND/OR PUDDLES	Minor, up to 4-inch rut depth in northeast corner.
	6	VEGETATION CONDITION	Varies from good to bare soil
	7	TREES	None
	8	OTHER	
UPSTREAM SLOPE	9	SLIDE, SLOUGH, SCARP	Minor scarp at inlet from FGD-A
	10	SLOPE PROTECTION	Southern slope has been regraded.
	11	SINKHOLE, ANIMAL BURROW	None observed
	12	EMB.-ABUT. CONTACT	NA
	13	EROSION	Erosion along western and northern slope due to surface water.
	14	VEGETATION CONDITION	Poor along recently regraded areas.
	15	TREES	None
	16	OTHER	

ADDITIONAL COMMENTS:

IMPOUNDMENT: FGD-B Pond **INSPECTION DATE: 11/16/2017**

AREA INSPECTED	EMBANKMENT 2 of 2		
	ITEM NO.		OBSERVATIONS
DOWNSTREAM SLOPE	17	WET AREAS	None
	18	SEEPAGE	None
	19	SLIDE, SLOUGH, SCARP	None
	20	EMB.-ABUT. CONTACT	Good
	21	CAVE IN, ANIMAL BURROW	Fewer burrows than previously observed. Hog damage much more severe.
	22	EROSION	Minor
	23	UNUSUAL MOVEMENT	None
	24	VEGETATION CONTROL	Good grass cover except for areas with hog damage. Isolated areas with vegetation > 6 inches.
	25	BENCH	NA
	26	OTHER	
INSTRUMENT-ATION	27	PIEZOMETERS/OBSERV. WELLS	NA
	28	STAFF GAUGE AND RECORDER	NA. Freeboard measured manually.
	29	WEIRS	NA
	30	SURVEY MONUMENTS	NA
	31	DRAINS	NA
	32	FREQUENCY OF READINGS	Freeboard measurements 1 to 4 days

ADDITIONAL COMMENTS:

IMPOUNDMENT: FGD-B Pond **INSPECTION DATE: 11/16/2017**

HYDRAULIC STRUCTURES

1 of 1

AREA INSPECTED	ITEM NO.	CONDITION	OBSERVATIONS
OUTLET WORKS	33	INLET PIPES	Primary pipe discharges into east side of pond. Inlet submerged.
	34	TRASHRACK	NA
	35	STILLING BASIN	NA
	36	PRIMARY CLOSURE	NA
	37	SECONDARY CLOSURE	NA
	38	CONTROL MECHANISM	One valve to discharge pipe to FGD-B
	39	OUTLET PIPE	Outlet of pipe from pump station below grade (not visible).
	40	OUTLET TOWER	NA
	41	EROSION ALONG DAM TOE	None
	42	SEEPAGE	None observed.
	43	UNUSUAL MOVEMENT	None
	44	OTHER	

ADDITIONAL COMMENTS:

OAK GROVE SES

IMPOUNDMENT: FGD-C Pond **INSPECTION DATE: 11/16/2017**

AREA INSPECTED	ITEM NO.	CONDITION	OBSERVATIONS
EMBANKMENT			
1 of 2			
CREST	1	SURFACE CRACKING	None
	2	CAVE IN, ANIMAL BURROWS	None
	3	LOW AREA(S)	None
	4	HORIZONTAL ALIGNMENT	Good
	5	RUTS AND/OR PUDDLES	None
	6	VEGETATION CONDITION	None, gravel
	7	TREES	None
	8	OTHER	
UPSTREAM SLOPE	9	SLIDE, SLOUGH, SCARP	None
	10	SLOPE PROTECTION	Cemetitious fly ash lines slopes
	11	SINKHOLE, ANIMAL BURROW	None
	12	EMB.-ABUT. CONTACT	NA
	13	EROSION	Minor; primarily from surface water run-off.
	14	VEGETATION CONDITION	NA
	15	TREES	None
	16	OTHER	

ADDITIONAL COMMENTS:

IMPOUNDMENT: FGD-C Pond **INSPECTION DATE: 11/16/2017**

AREA INSPECTED	EMBANKMENT 2 of 2		
	ITEM NO.		OBSERVATIONS
DOWNSTREAM SLOPE	17	WET AREAS	None
	18	SEEPAGE	None
	19	SLIDE, SLOUGH, SCARP	None
	20	EMB.-ABUT. CONTACT	NA
	21	CAVE IN, ANIMAL BURROW	Several burrows found. Hog damage present but less severe than other ponds.
	22	EROSION	Moderate rilling in SE corner.
	23	UNUSUAL MOVEMENT	None
	24	VEGETATION CONTROL	Generally good. Poor vegetation near toe of west and southwest slopes. Moderate rilling in southeast corner. Isolated areas with grass > 6 inches.
	25	BENCH	NA
	26	OTHER	
INSTRUMENTATION	27	PIEZOMETERS/OBSERV. WELLS	NA
	28	STAFF GAUGE AND RECORDER	NA. Freeboard measured manually.
	29	WEIRS	NA
	30	SURVEY MONUMENTS	NA
	31	DRAINS	NA
	32	FREQUENCY OF READINGS	Freeboard measurements 1 to 4 days

ADDITIONAL COMMENTS:

IMPOUNDMENT: FGD-C Pond **INSPECTION DATE: 11/16/2017**

HYDRAULIC STRUCTURES

1 of 1

AREA INSPECTED	ITEM NO.	CONDITION	OBSERVATIONS
OUTLET WORKS	33	INLET PIPES	Eleven inlet pipes. One discharging into pond.
	34	TRASHRACK	NA
	35	STILLING BASIN	NA
	36	PRIMARY CLOSURE	NA
	37	SECONDARY CLOSURE	NA
	38	CONTROL MECHANISM	NA
	39	OUTLET PIPE	One outlet pipe.
	40	OUTLET TOWER	NA
	41	EROSION ALONG DAM TOE	None
	42	SEEPAGE	None observed.
	43	UNUSUAL MOVEMENT	None
	44	OTHER	

ADDITIONAL COMMENTS:

OAK GROVE SES

INSPECTION DATE: 11/16/2017

Ash Landfill 1

ITEM NO.	CONDITION	OBSERVATIONS
1	SURFACE CRACKING	None
2	ANIMAL BURROWS	Animal burrows present, particularly on south side.
3	SLIDE, SLOUGH, SCARP	None
4	SETTLEMENT/DEPRESSIONS	None in embankment
5	VEGETATION CONDITION	Vegetation on Cell 1 final cover has improved. Still areas with poor coverage. Extensive hog rooting visible. Vegetation present on protective cover on sideslopes and cell floor.
6	EROSION	Considerable erosion along Cell 4 downstream slopes. Areas of erosion present in Cell 1 final cover.
7	DRAINAGE FEATURES	Ponding water on benches causing erosion.
8	DOWNCHUTES	Erosion present below concrete block downchute on southern slope of Cell 3 not performing well. Geomembrane downchutes functioning well.
9	FINAL COVER INTRUSIONS	None
10	CONTROL OF CONTACT WATER	Berms placed along south side of Cell 2 to control contact water.

ADDITIONAL COMMENTS: (8) The Cell 3 downchute is located below the lowermost bench. Water is flowing below rather than above the articulated concrete block lining. The condition is not adversely affecting the stability function of the landfill.

APPENDIX B
PHOTOGRAPHS

Pond FGD- A thru C

CAMERA LOCATION:
31.1833N, −96.4926W
(Smartphone GPS)

PHOTO DESCRIPTION:
Southeastern crest and upstream slope. Minor rutting. Erosion rill due to ponding water.

KEY MAP:

Luminant ENERGY	**ANNUAL INSPECTION − OAK GROVE SES**
	LUMINANT ENERGY
	OAK GROVE, TEXAS
Pond FGD−A	

Golder Associates	PROJECT NO. 1782004			FILE REF. Nov 2017 download 098.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 1**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.1831N, −96.4923W
(Smartphone GPS)

PHOTO DESCRIPTION:
Southern crest and upstream slope.

KEY MAP:

Luminant ENERGY	ANNUAL INSPECTION − OAK GROVE SES			
	LUMINANT ENERGY			
	OAK GROVE, TEXAS			
Pond FGD−A				
Golder Associates	PROJECT NO. 1782004		FILE REF. Nov 2017 download 099.JPG	
	DESIGN	VK 11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK 11/09/2017	**PHOTO 2**	
	REVIEW	JBF 11/09/2017		

CAMERA LOCATION:
31.1835N, −96.4945W
(Smartphone GPS)

PHOTO DESCRIPTION:
Western crest and upstream slope.

KEY MAP:

Luminant ENERGY	ANNUAL INSPECTION − OAK GROVE SES			
	LUMINANT ENERGY			
	OAK GROVE, TEXAS			
Pond FGD−A				
Golder Associates	PROJECT NO. 1782004		FILE REF. Nov 2017 download 101.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS REV: 0
	CHECK	VK	11/09/2017	**PHOTO 3**
	REVIEW	JBF	11/09/2017	

CAMERA LOCATION:
31.1843N, −96.4948W
(Smartphone GPS)

PHOTO DESCRIPTION:
Northwestern crest and upstream slope − looking NE.

KEY MAP:

Luminant ENERGY	**ANNUAL INSPECTION − OAK GROVE SES**
	LUMINANT ENERGY
	OAK GROVE, TEXAS

Pond FGD−A

Golder Associates	PROJECT NO. 1782004			FILE REF. Nov 2017 download 102.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 4**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.1842N, −96.4945W
(Smartphone GPS)

PHOTO DESCRIPTION:
Northwestern crest and upstream slope − looking SW.

KEY MAP:

Luminant ENERGY

ANNUAL INSPECTION − OAK GROVE SES

LUMINANT ENERGY

OAK GROVE, TEXAS

Pond FGD−A

Golder Associates

PROJECT NO. 1782004			FILE REF. Nov 2017 download 103.JPG	
DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
CHECK	VK	11/09/2017	**PHOTO 5**	
REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.1845N, −96.4944W
(Smartphone GPS)

PHOTO DESCRIPTION:
Northwestern crest and upstream slope. Wave action erosion and rills from ponding water.

KEY MAP:

Luminant ENERGY	ANNUAL INSPECTION − OAK GROVE SES			
	LUMINANT ENERGY			
	OAK GROVE, TEXAS			
Pond FGD−A				
Golder Associates	PROJECT NO. 1782004		FILE REF. Nov 2017 download 104.JPG	
	DESIGN	VK 11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK 11/09/2017	**PHOTO 6**	
	REVIEW	JBF 11/09/2017		

CAMERA LOCATION:
31.1848N, −96.4944W
(Smartphone GPS)

PHOTO DESCRIPTION:
Northeastern crest and upstream slope.

KEY MAP:

Luminant ENERGY	ANNUAL INSPECTION − OAK GROVE SES			
	LUMINANT ENERGY			
	OAK GROVE, TEXAS			
Pond FGD−A				
Golder Associates	PROJECT NO. 1782004		FILE REF. Nov 2017 download 105.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS REV: 0
	CHECK	VK	11/09/2017	**PHOTO 7**
	REVIEW	JBF	11/09/2017	

CAMERA LOCATION:
31.185N, −96.4941W
(Smartphone GPS)

PHOTO DESCRIPTION:
Northeastern crest and upstream slope. Wave action erosion

KEY MAP:

Luminant ENERGY	**ANNUAL INSPECTION − OAK GROVE SES**
	LUMINANT ENERGY
	OAK GROVE, TEXAS
	Pond FGD−A

Golder Associates	PROJECT NO. 1782004			FILE REF. Nov 2017 download 107.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 8**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.185N, −96.4941W
(Smartphone GPS)

PHOTO DESCRIPTION:
Northeastern crest and upstream slope. Erosion rills due to ponding water.

KEY MAP:

Luminant ENERGY	ANNUAL INSPECTION − OAK GROVE SES				
	LUMINANT ENERGY				
	OAK GROVE, TEXAS				
Pond FGD−A					
Golder Associates	PROJECT NO. 1782004			FILE REF. Nov 2017 download 108.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 9**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.1846N, −96.4922W
(Smartphone GPS)

PHOTO DESCRIPTION:
Northeastern crest and upstream slope − looking NW.

KEY MAP:

Luminant ENERGY

ANNUAL INSPECTION − OAK GROVE SES

LUMINANT ENERGY

OAK GROVE, TEXAS

Pond FGD−A

Golder Associates

PROJECT NO. 1782004			FILE REF. Nov 2017 download 110.JPG	
DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
CHECK	VK	11/09/2017	**PHOTO 10**	
REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.1846N, −96.4922W
(Smartphone GPS)

PHOTO DESCRIPTION:
Southeastern crest and upstream slope. Erosion rills due to ponding water.

KEY MAP:

Luminant ENERGY

ANNUAL INSPECTION − OAK GROVE SES

LUMINANT ENERGY

OAK GROVE, TEXAS

Pond FGD−A

Golder Associates

PROJECT NO. 1782004			FILE REF. Nov 2017 download 111.JPG	
DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
CHECK	VK	11/09/2017	**PHOTO 11**	
REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.1842N, −96.4932W
(Smartphone GPS)

PHOTO DESCRIPTION:
Divider Berm.

KEY MAP:

Luminant ENERGY	ANNUAL INSPECTION − OAK GROVE SES			
	LUMINANT ENERGY			
	OAK GROVE, TEXAS			
	Pond FGD−A			
Golder Associates	PROJECT NO. 1782004		FILE REF. Nov 2017 download 112.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS REV: 0
	CHECK	VK	11/09/2017	**PHOTO 12**
	REVIEW	JBF	11/09/2017	

CAMERA LOCATION:
31.1839N, −96.4918W
(Smartphone GPS)

PHOTO DESCRIPTION:
Reclaim/recycling pump station.

KEY MAP:

Luminant ENERGY	**ANNUAL INSPECTION − OAK GROVE SES**
	LUMINANT ENERGY
	OAK GROVE, TEXAS

Pond FGD−A

Golder Associates	PROJECT NO. 1782004			FILE REF. Nov 2017 download 118.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 13**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.1842N, −96.4919W
(Smartphone GPS)

PHOTO DESCRIPTION:
Reclaim/recycling pump station. Leakage collecting in containment area.

KEY MAP:

Luminant ENERGY	ANNUAL INSPECTION − OAK GROVE SES			
	LUMINANT ENERGY			
	OAK GROVE, TEXAS			
Pond FGD−A				
Golder Associates	PROJECT NO. 1782004		FILE REF. Nov 2017 download 122.JPG	
	DESIGN	VK 11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK 11/09/2017	**PHOTO 14**	
	REVIEW	JBF 11/09/2017		

CAMERA LOCATION:
31.1843N, −96.492W
(Smartphone GPS)

PHOTO DESCRIPTION:
Pipes added along SW corner of pump station during FGD−C construction.

KEY MAP:

Luminant ENERGY	ANNUAL INSPECTION − OAK GROVE SES			
	LUMINANT ENERGY			
	OAK GROVE, TEXAS			
	Pond FGD−A			
Golder Associates	PROJECT NO. 1782004		FILE REF. Nov 2017 download 124.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS REV: 0
	CHECK	VK	11/09/2017	**PHOTO 15**
	REVIEW	JBF	11/09/2017	

CAMERA LOCATION:
31.1837N, −96.4922W
(Smartphone GPS)

PHOTO DESCRIPTION:
West side of pump station.
New HDPE pipe in background.

KEY MAP:

Luminant ENERGY	ANNUAL INSPECTION − OAK GROVE SES			
	LUMINANT ENERGY			
	OAK GROVE, TEXAS			
Pond FGD−A				
Golder Associates	PROJECT NO. 1782004		FILE REF. Nov 2017 download 125.JPG	
	DESIGN	VK 11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK 11/09/2017	**PHOTO 16**	
	REVIEW	JBF 11/09/2017		

CAMERA LOCATION:
31.1838N, −96.4918W
(Smartphone GPS)

PHOTO DESCRIPTION:
Access ramp to FGD−A.

KEY MAP:

Luminant ENERGY	**ANNUAL INSPECTION − OAK GROVE SES**
	LUMINANT ENERGY
	OAK GROVE, TEXAS
	Pond FGD−A

Golder Associates	PROJECT NO. 1782004			FILE REF. Nov 2017 download 126.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 17**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.1847N, −96.4945W
(Smartphone GPS)

PHOTO DESCRIPTION:
Northwestern downstream slope.

KEY MAP:

Luminant ENERGY	ANNUAL INSPECTION − OAK GROVE SES			
	LUMINANT ENERGY			
	OAK GROVE, TEXAS			
	Pond FGD−A			
Golder Associates	PROJECT NO. 1782004		FILE REF. Nov 2017 download 129.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS REV: 0
	CHECK	VK	11/09/2017	**PHOTO 18**
	REVIEW	JBF	11/09/2017	

CAMERA LOCATION:
31.1844N, −96.4946W
(Smartphone GPS)

PHOTO DESCRIPTION:
Valve box for overflow pipe from FGD−A to FGD−B.

KEY MAP:

Luminant ENERGY	ANNUAL INSPECTION − OAK GROVE SES			
	LUMINANT ENERGY			
	OAK GROVE, TEXAS			
Pond FGD−A				
Golder Associates	PROJECT NO. 1782004		FILE REF. Nov 2017 download 133.JPG	
	DESIGN	VK 11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK 11/09/2017	**PHOTO 19**	
	REVIEW	JBF 11/09/2017		

CAMERA LOCATION:
31.1835N, −96.4945W
(Smartphone GPS)

PHOTO DESCRIPTION:
Southwestern downstream slope. Hog damage. FGD−B in background.

KEY MAP:

Luminant ENERGY	ANNUAL INSPECTION − OAK GROVE SES			
	LUMINANT ENERGY			
	OAK GROVE, TEXAS			
Pond FGD−A				
Golder Associates	PROJECT NO. 1782004		FILE REF. Nov 2017 download 135.JPG	
	DESIGN	VK 11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK 11/09/2017	**PHOTO 20**	
	REVIEW	JBF 11/09/2017		

CAMERA LOCATION:
31.183N, −96.4931W
(Smartphone GPS)

PHOTO DESCRIPTION:
Southern downstream slope.

KEY MAP:

Luminant ENERGY	**ANNUAL INSPECTION − OAK GROVE SES**
	LUMINANT ENERGY
	OAK GROVE, TEXAS
Pond FGD−A	

Golder Associates	PROJECT NO. 1782004			FILE REF. Nov 2017 download 137.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 21**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.1834N, −96.4925W
(Smartphone GPS)

PHOTO DESCRIPTION:
Southeastern downstream slope. New pipes added for FGD−C.

KEY MAP:

Luminant ENERGY	**ANNUAL INSPECTION − OAK GROVE SES**
	LUMINANT ENERGY
	OAK GROVE, TEXAS
	Pond FGD−A

Golder Associates	PROJECT NO. 1782004			FILE REF. Nov 2017 download 139.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 22**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.1833N, −96.4925W
(Smartphone GPS)

PHOTO DESCRIPTION:
Southeastern downstream slope. New pipes added for FGD−C.

KEY MAP:

Luminant ENERGY	**ANNUAL INSPECTION − OAK GROVE SES**
	LUMINANT ENERGY
	OAK GROVE, TEXAS
Pond FGD−A	

Golder Associates	PROJECT NO. 1782004			FILE REF. Nov 2017 download 140.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 23**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.1835N, −96.4923W
(Smartphone GPS)

PHOTO DESCRIPTION:
Depression between HDPE pipes.

KEY MAP:

Luminant ENERGY	ANNUAL INSPECTION − OAK GROVE SES			
	LUMINANT ENERGY			
	OAK GROVE, TEXAS			
	Pond FGD−A			
Golder Associates	PROJECT NO. 1782004		FILE REF. Nov 2017 download 142.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS REV: 0
	CHECK	VK	11/09/2017	**PHOTO 24**
	REVIEW	JBF	11/09/2017	

CAMERA LOCATION:
31.1846N, −96.492W
(Smartphone GPS)

PHOTO DESCRIPTION:
Northeastern downstream slope − looking NW. Hog damage.

KEY MAP:

Luminant ENERGY	**ANNUAL INSPECTION − OAK GROVE SES**
	LUMINANT ENERGY
	OAK GROVE, TEXAS
Pond FGD−A	

Golder Associates	PROJECT NO. 1782004			FILE REF. Nov 2017 download 144.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 25**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.1847N, −96.4921W
(Smartphone GPS)

PHOTO DESCRIPTION:
Northeastern downstream slope − looking SE. Hog damage.

KEY MAP:

Luminant ENERGY	ANNUAL INSPECTION − OAK GROVE SES			
	LUMINANT ENERGY			
	OAK GROVE, TEXAS			
	Pond FGD−A			
Golder Associates	PROJECT NO. 1782004		FILE REF. Nov 2017 download 145.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS REV: 0
	CHECK	VK	11/09/2017	**PHOTO 26**
	REVIEW	JBF	11/09/2017	

CAMERA LOCATION:
31.1851N, −96.4941W
(Smartphone GPS)

PHOTO DESCRIPTION:
Western end of northeastern downstream slope.

KEY MAP:

Luminant ENERGY	ANNUAL INSPECTION − OAK GROVE SES			
	LUMINANT ENERGY			
	OAK GROVE, TEXAS			
Pond FGD−A				
Golder Associates	PROJECT NO. 1782004		FILE REF. Nov 2017 download 147.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS REV: 0
	CHECK	VK	11/09/2017	**PHOTO 27**
	REVIEW	JBF	11/09/2017	

CAMERA LOCATION:
31.1851N, −96.4941W
(Smartphone GPS)

PHOTO DESCRIPTION:
Eastern slope of access road from FGD−A to FGD−B.

KEY MAP:

Luminant ENERGY	**ANNUAL INSPECTION − OAK GROVE SES**
	LUMINANT ENERGY
	OAK GROVE, TEXAS
Pond FGD−A	

Golder Associates	PROJECT NO. 1782004			FILE REF. Nov 2017 download 148.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 28**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.1863N, −96.4942W
(Smartphone GPS)

PHOTO DESCRIPTION:
Northeastern corner of FGD−B.

KEY MAP:

Luminant ENERGY	ANNUAL INSPECTION − OAK GROVE SES				
	LUMINANT ENERGY				
	OAK GROVE, TEXAS				
Pond FGD−B					
Golder Associates	PROJECT NO. 1782004			FILE REF. Nov 2017 download 150.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 29**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.1863N, −96.4942W
(Smartphone GPS)

PHOTO DESCRIPTION:
Eastern portion of FGD−B.

KEY MAP:

Luminant ENERGY	**ANNUAL INSPECTION − OAK GROVE SES**
	LUMINANT ENERGY
	OAK GROVE, TEXAS
Pond FGD−B	

Golder Associates	PROJECT NO. 1782004			FILE REF. Nov 2017 download 152.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 30**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.1869N, −96.4949W
(Smartphone GPS)

PHOTO DESCRIPTION:
Northern upstream slope.

KEY MAP:

Luminant ENERGY	**ANNUAL INSPECTION − OAK GROVE SES**
	LUMINANT ENERGY
	OAK GROVE, TEXAS
Pond FGD−B	

Golder Associates	PROJECT NO. 1782004			FILE REF. Nov 2017 download 154.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 31**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.1866N, −96.4958W
(Smartphone GPS)

PHOTO DESCRIPTION:
Northwestern upstream slope.

KEY MAP:

Luminant ENERGY	ANNUAL INSPECTION − OAK GROVE SES			
	LUMINANT ENERGY			
	OAK GROVE, TEXAS			
Pond FGD−B				
Golder Associates	PROJECT NO. 1782004		FILE REF. Nov 2017 download 157.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS REV: 0
	CHECK	VK	11/09/2017	**PHOTO 32**
	REVIEW	JBF	11/09/2017	

CAMERA LOCATION:
31.1846N, −96.4958W
(Smartphone GPS)

PHOTO DESCRIPTION:
Southern portion of FGD−B − looking SE.

KEY MAP:

Luminant ENERGY	ANNUAL INSPECTION − OAK GROVE SES				
	LUMINANT ENERGY				
	OAK GROVE, TEXAS				
Pond FGD−B					
Golder Associates	PROJECT NO. 1782004			FILE REF. Nov 2017 download 160.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 33**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.1839N, −96.4952W
(Smartphone GPS)

PHOTO DESCRIPTION:
Southern portion of FGD−B − looking NW.

KEY MAP:

Luminant ENERGY	ANNUAL INSPECTION − OAK GROVE SES			
	LUMINANT ENERGY			
	OAK GROVE, TEXAS			
Pond FGD−B				
Golder Associates	PROJECT NO. 1782004		FILE REF. Nov 2017 download 163.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS REV: 0
	CHECK	VK	11/09/2017	**PHOTO 34**
	REVIEW	JBF	11/09/2017	

CAMERA LOCATION:
31.1838N, −96.4949W
(Smartphone GPS)

PHOTO DESCRIPTION:
Southeastern corner of FGD−B − looking N.

KEY MAP:

Luminant ENERGY	ANNUAL INSPECTION − OAK GROVE SES			
	LUMINANT ENERGY			
	OAK GROVE, TEXAS			
Pond FGD−B				
Golder Associates	PROJECT NO. 1782004		FILE REF. Nov 2017 download 166.JPG	
	DESIGN	VK 11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK 11/09/2017	**PHOTO 35**	
	REVIEW	JBF 11/09/2017		

CAMERA LOCATION:
31.1838N, −96.4949W
(Smartphone GPS)

PHOTO DESCRIPTION:
Southeastern corner of FGD−B − looking SW.

KEY MAP:

Luminant ENERGY	**ANNUAL INSPECTION − OAK GROVE SES**
	LUMINANT ENERGY
	OAK GROVE, TEXAS
Pond FGD−B	

Golder Associates	PROJECT NO. 1782004			FILE REF. Nov 2017 download 167.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 36**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.1835N, −96.4952W
(Smartphone GPS)

PHOTO DESCRIPTION:
Southern downstream slope − looking NE. Hog damage near crest.

KEY MAP:

Luminant ENERGY	**ANNUAL INSPECTION − OAK GROVE SES**
	LUMINANT ENERGY
	OAK GROVE, TEXAS
Pond FGD−B	

Golder Associates	PROJECT NO. 1782004			FILE REF. Nov 2017 download 168.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 37**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.1835N, −96.4952W
(Smartphone GPS)

PHOTO DESCRIPTION:
Southern downstream slope − looking N.

KEY MAP:

Luminant ENERGY	**ANNUAL INSPECTION − OAK GROVE SES**
	LUMINANT ENERGY
	OAK GROVE, TEXAS
Pond FGD−B	

Golder Associates	PROJECT NO. 1782004			FILE REF. Nov 2017 download 170.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 38**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.1845N, −96.496W
(Smartphone GPS)

PHOTO DESCRIPTION:
Southwestern downstream slope − looking SE. Hog damage near crest.

KEY MAP:

Luminant ENERGY	**ANNUAL INSPECTION − OAK GROVE SES**
	LUMINANT ENERGY
	OAK GROVE, TEXAS
Pond FGD−B	

Golder Associates	PROJECT NO. 1782004			FILE REF. Nov 2017 download 172.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 39**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.1867N, −96.4959W
(Smartphone GPS)

PHOTO DESCRIPTION:
Northwestern downstream slope. Hog damage near crest.

KEY MAP:

Luminant ENERGY	ANNUAL INSPECTION − OAK GROVE SES			
	LUMINANT ENERGY			
	OAK GROVE, TEXAS			
Pond FGD−B				
Golder Associates	PROJECT NO. 1782004		FILE REF. Nov 2017 download 177.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS REV: 0
	CHECK	VK	11/09/2017	**PHOTO 40**
	REVIEW	JBF	11/09/2017	

CAMERA LOCATION:
31.187N, −96.4954W
(Smartphone GPS)

PHOTO DESCRIPTION:
Northern downstream slope.
Hog damage.

KEY MAP:

Luminant ENERGY	ANNUAL INSPECTION − OAK GROVE SES				
	LUMINANT ENERGY				
	OAK GROVE, TEXAS				
Pond FGD−B					
Golder Associates	PROJECT NO. 1782004			FILE REF. Nov 2017 download 178.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 41**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.187N, −96.4945W
(Smartphone GPS)

PHOTO DESCRIPTION:
Northeastern downstream slope.

KEY MAP:

Luminant ENERGY	**ANNUAL INSPECTION − OAK GROVE SES**
	LUMINANT ENERGY
	OAK GROVE, TEXAS
Pond FGD−B	

Golder Associates	PROJECT NO. 1782004			FILE REF. Nov 2017 download 179.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 42**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.1869N, −96.4939W
(Smartphone GPS)

PHOTO DESCRIPTION:
Eastern downstream slope.

KEY MAP:

Luminant ENERGY	**ANNUAL INSPECTION − OAK GROVE SES**
	LUMINANT ENERGY
	OAK GROVE, TEXAS
Pond FGD−B	

Golder Associates	PROJECT NO. 1782004			FILE REF. Nov 2017 download 182.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 43**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.1807N, −96.4981W
(Smartphone GPS)

PHOTO DESCRIPTION:
Access ramp to FGD−C.

KEY MAP:

Luminant ENERGY	**ANNUAL INSPECTION − OAK GROVE SES**
	LUMINANT ENERGY
	OAK GROVE, TEXAS
	Pond FGD−C

Golder Associates	PROJECT NO. 1782004			FILE REF. Nov 2017 download 185.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 44**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.1809N, −96.4977W
(Smartphone GPS)

PHOTO DESCRIPTION:
Southwestern upstream slope.

KEY MAP:

Luminant ENERGY	ANNUAL INSPECTION − OAK GROVE SES				
	LUMINANT ENERGY				
	OAK GROVE, TEXAS				
Pond FGD−C					
Golder Associates	PROJECT NO. 1782004			FILE REF. Nov 2017 download 186.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 45**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.181N, −96.4964W
(Smartphone GPS)

PHOTO DESCRIPTION:
Southeastern upstream slope − looking W.

KEY MAP:

Luminant ENERGY	**ANNUAL INSPECTION − OAK GROVE SES**
	LUMINANT ENERGY
	OAK GROVE, TEXAS
Pond FGD−C	

Golder Associates	PROJECT NO. 1782004			FILE REF. Nov 2017 download 188.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 46**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.181N, −96.4964W
(Smartphone GPS)

PHOTO DESCRIPTION:
Southeastern upstream slope − looking N.

KEY MAP:

Luminant ENERGY	**ANNUAL INSPECTION − OAK GROVE SES**
	LUMINANT ENERGY
	OAK GROVE, TEXAS
Pond FGD−C	

Golder Associates	PROJECT NO. 1782004			FILE REF. Nov 2017 download 189.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 47**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.1825N, −96.4966W
(Smartphone GPS)

PHOTO DESCRIPTION:
Mid−southeastern upstream slope − looking S.

KEY MAP:

Luminant ENERGY	**ANNUAL INSPECTION − OAK GROVE SES**
	LUMINANT ENERGY
	OAK GROVE, TEXAS
Pond FGD−C	

Golder Associates	PROJECT NO. 1782004			FILE REF. Nov 2017 download 191.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 48**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.1825N, −96.4966W
(Smartphone GPS)

PHOTO DESCRIPTION:
Western slope of divider berm − looking NW.

KEY MAP:

Luminant ENERGY	**ANNUAL INSPECTION − OAK GROVE SES**
	LUMINANT ENERGY
	OAK GROVE, TEXAS
Pond FGD−C	

Golder Associates	PROJECT NO. 1782004			FILE REF. Nov 2017 download 192.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 49**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.1829N, −96.4976W
(Smartphone GPS)

PHOTO DESCRIPTION:
Western slope of divider berm − looking SE.

KEY MAP:

Luminant ENERGY	ANNUAL INSPECTION − OAK GROVE SES				
	LUMINANT ENERGY				
	OAK GROVE, TEXAS				
	Pond FGD−C				
Golder Associates	PROJECT NO. 1782004			FILE REF. Nov 2017 download 193.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 50**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.1829N, −96.4975W
(Smartphone GPS)

PHOTO DESCRIPTION:
Mid−western slope of divider berm − looking NW.

KEY MAP:

Luminant ENERGY	ANNUAL INSPECTION − OAK GROVE SES			
	LUMINANT ENERGY			
	OAK GROVE, TEXAS			
Pond FGD−C				
Golder Associates	PROJECT NO. 1782004		FILE REF. Nov 2017 download 194.JPG	
	DESIGN	VK 11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK 11/09/2017	**PHOTO 51**	
	REVIEW	JBF 11/09/2017		

CAMERA LOCATION:
31.1832N, −96.4984W
(Smartphone GPS)

PHOTO DESCRIPTION:
Eastern slope of divider berm − looking SE.

KEY MAP:

Luminant ENERGY	ANNUAL INSPECTION − OAK GROVE SES				
	LUMINANT ENERGY				
	OAK GROVE, TEXAS				
Pond FGD−C					
Golder Associates	PROJECT NO. 1782004			FILE REF. Nov 2017 download 196.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 52**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.1826N, −96.4967W
(Smartphone GPS)

PHOTO DESCRIPTION:
Southern corner of divider berm.

KEY MAP:

Luminant ENERGY	ANNUAL INSPECTION − OAK GROVE SES			
	LUMINANT ENERGY			
	OAK GROVE, TEXAS			
Pond FGD−C				
Golder Associates	PROJECT NO. 1782004		FILE REF. Nov 2017 download 198.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS REV: 0
	CHECK	VK	11/09/2017	**PHOTO 53**
	REVIEW	JBF	11/09/2017	

CAMERA LOCATION:
31.1834N, −96.4968W
(Smartphone GPS)

PHOTO DESCRIPTION:
Northeastern upstream slope

KEY MAP:

Luminant ENERGY	ANNUAL INSPECTION – OAK GROVE SES			
	LUMINANT ENERGY			
	OAK GROVE, TEXAS			
looking NW.				
Golder Associates	PROJECT NO. 1782004		FILE REF. Nov 2017 download 200.JPG	
	DESIGN	VK 11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK 11/09/2017	**PHOTO 54**	
	REVIEW	JBF 11/09/2017		

CAMERA LOCATION:
31.1841N, −96.4987W
(Smartphone GPS)

PHOTO DESCRIPTION:
Northeastern upstream slope − looking SE.

KEY MAP:

Luminant ENERGY	ANNUAL INSPECTION − OAK GROVE SES			
	LUMINANT ENERGY			
	OAK GROVE, TEXAS			
Pond FGD−C				
Golder Associates	PROJECT NO. 1782004		FILE REF. Nov 2017 download 201.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS REV: 0
	CHECK	VK	11/09/2017	**PHOTO 55**
	REVIEW	JBF	11/09/2017	

CAMERA LOCATION:
31.1837N, −96.499W
(Smartphone GPS)

PHOTO DESCRIPTION:
Northwestern upstream slope − looking SW.

KEY MAP:

Luminant ENERGY	ANNUAL INSPECTION − OAK GROVE SES			
	LUMINANT ENERGY			
	OAK GROVE, TEXAS			
	Pond FGD−C			
Golder Associates	PROJECT NO. 1782004		FILE REF. Nov 2017 download 203.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS REV: 0
	CHECK	VK	11/09/2017	**PHOTO 56**
	REVIEW	JBF	11/09/2017	

CAMERA LOCATION:
31.1829N, −96.4994W
(Smartphone GPS)

PHOTO DESCRIPTION:
Northwestern upstream slope − looking NE.

KEY MAP:

Luminant ENERGY	ANNUAL INSPECTION − OAK GROVE SES				
	LUMINANT ENERGY				
	OAK GROVE, TEXAS				
Pond FGD−C					
Golder Associates	PROJECT NO. 1782004			FILE REF. Nov 2017 download 204.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 57**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.1829N, −96.4994W
(Smartphone GPS)

PHOTO DESCRIPTION:
Northern portion of western upstream slope.

KEY MAP:

Luminant ENERGY	ANNUAL INSPECTION − OAK GROVE SES			
	LUMINANT ENERGY			
	OAK GROVE, TEXAS			
Pond FGD−C				
Golder Associates	PROJECT NO. 1782004		FILE REF. Nov 2017 download 205.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS REV: 0
	CHECK	VK	11/09/2017	**PHOTO 58**
	REVIEW	JBF	11/09/2017	

CAMERA LOCATION:
31.1823N, −96.4982W
(Smartphone GPS)

PHOTO DESCRIPTION:
Southern portion of western upstream slope − looking S.

KEY MAP:

Luminant ENERGY

ANNUAL INSPECTION − OAK GROVE SES

LUMINANT ENERGY

OAK GROVE, TEXAS

Pond FGD−C

Golder Associates

PROJECT NO. 1782004			FILE REF. Nov 2017 download 206.JPG	
DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
CHECK	VK	11/09/2017	**PHOTO 59**	
REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.1809N, −96.498W
(Smartphone GPS)

PHOTO DESCRIPTION:
Southern portion of western upstream slope − looking N.

KEY MAP:

Luminant ENERGY	**ANNUAL INSPECTION − OAK GROVE SES**
	LUMINANT ENERGY
	OAK GROVE, TEXAS
Pond FGD−C	

Golder Associates	PROJECT NO. 1782004			FILE REF. Nov 2017 download 207.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 60**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.1808N, −96.4975W
(Smartphone GPS)

PHOTO DESCRIPTION:
Western portion of southern downstream slope. Poor grass cover.

KEY MAP:

Luminant ENERGY	ANNUAL INSPECTION − OAK GROVE SES				
	LUMINANT ENERGY				
	OAK GROVE, TEXAS				
Pond FGD−C					
Golder Associates	PROJECT NO. 1782004			FILE REF. Nov 2017 download 209.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 61**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.1813N, −96.4963W
(Smartphone GPS)

PHOTO DESCRIPTION:
Southern portion of eastern downstream slope. Inlet pipes.

KEY MAP:

Luminant ENERGY	ANNUAL INSPECTION − OAK GROVE SES				
	LUMINANT ENERGY				
	OAK GROVE, TEXAS				
Pond FGD−C					
Golder Associates	PROJECT NO. 1782004			FILE REF. Nov 2017 download 212.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 62**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.1811N, −96.4962W
(Smartphone GPS)

PHOTO DESCRIPTION:
Eastern downstream slope.

KEY MAP:

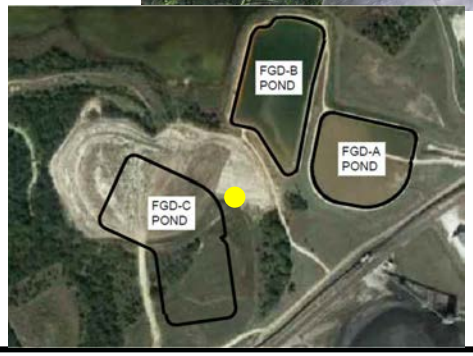
Luminant ENERGY	**ANNUAL INSPECTION − OAK GROVE SES**
	LUMINANT ENERGY
	OAK GROVE, TEXAS
Pond FGD−C	

Golder Associates	PROJECT NO. 1782004			FILE REF. Nov 2017 download 213.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 63**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.1833N, −96.4963W
(Smartphone GPS)

PHOTO DESCRIPTION:
Outlet pipe.

KEY MAP:



Luminant ENERGY	ANNUAL INSPECTION − OAK GROVE SES			
	LUMINANT ENERGY			
	OAK GROVE, TEXAS			
Pond FGD−C				
Golder Associates	PROJECT NO. 1782004		FILE REF. Nov 2017 download 214.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS REV: 0
	CHECK	VK	11/09/2017	**PHOTO 64**
	REVIEW	JBF	11/09/2017	

CAMERA LOCATION:
31.1837N, −96.4967W
(Smartphone GPS)

PHOTO DESCRIPTION:
Northeastern downstream slope − looking S.

KEY MAP:

Luminant ENERGY	ANNUAL INSPECTION − OAK GROVE SES			
	LUMINANT ENERGY			
	OAK GROVE, TEXAS			
	Pond FGD−C			
Golder Associates	PROJECT NO. 1782004		FILE REF. Nov 2017 download 217.JPG	
	DESIGN	VK 11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK 11/09/2017	**PHOTO 65**	
	REVIEW	JBF 11/09/2017		

CAMERA LOCATION:
31.1837N, −96.4968W
(Smartphone GPS)

PHOTO DESCRIPTION:
Northeastern downstream slope − looking N.

KEY MAP:

Luminant ENERGY	**ANNUAL INSPECTION − OAK GROVE SES**
	LUMINANT ENERGY
	OAK GROVE, TEXAS
Pond FGD−C	

Golder Associates	PROJECT NO. 1782004			FILE REF. Nov 2017 download 218.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 66**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.184N, −96.4979W
(Smartphone GPS)

PHOTO DESCRIPTION:
Northeastern downstream slope − looking SE.

KEY MAP:

Luminant ENERGY	ANNUAL INSPECTION − OAK GROVE SES			
	LUMINANT ENERGY			
	OAK GROVE, TEXAS			
Pond FGD−C				
Golder Associates	PROJECT NO. 1782004		FILE REF. Nov 2017 download 219.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS REV: 0
	CHECK	VK	11/09/2017	**PHOTO 67**
	REVIEW	JBF	11/09/2017	

CAMERA LOCATION:
31.1809N, −96.498W
(Smartphone GPS)

PHOTO DESCRIPTION:
Southern portion of western downstream slope − looking N.

KEY MAP:

Luminant ENERGY	ANNUAL INSPECTION − OAK GROVE SES			
	LUMINANT ENERGY			
	OAK GROVE, TEXAS			
Pond FGD−C				
Golder Associates	PROJECT NO. 1782004		FILE REF. Nov 2017 download 300.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS REV: 0
	CHECK	VK	11/09/2017	**PHOTO 68**
	REVIEW	JBF	11/09/2017	

CAMERA LOCATION:
31.181N, −96.4981W
(Smartphone GPS)

PHOTO DESCRIPTION:
Western downstream slope.
Erosion rills.

KEY MAP:

Luminant ENERGY

ANNUAL INSPECTION − OAK GROVE SES

LUMINANT ENERGY

OAK GROVE, TEXAS

Pond FGD−C

Golder Associates

PROJECT NO. 1782004			FILE REF. Nov 2017 download 301.JPG	
DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
CHECK	VK	11/09/2017	**PHOTO 69**	
REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.1822N, −96.4983W
(Smartphone GPS)

PHOTO DESCRIPTION:
Northern portion of western downstream slope.

KEY MAP:

Luminant ENERGY	**ANNUAL INSPECTION − OAK GROVE SES**
	LUMINANT ENERGY
	OAK GROVE, TEXAS
Pond FGD−C	

Golder Associates	PROJECT NO. 1782004			FILE REF. Nov 2017 download 302.JPG	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 70**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.183N, −96.4995W
(Smartphone GPS)

PHOTO DESCRIPTION:
Northwestern downstream slope.

KEY MAP:

Luminant ENERGY

ANNUAL INSPECTION − OAK GROVE SES

LUMINANT ENERGY

OAK GROVE, TEXAS

Pond FGD−C

Golder Associates

PROJECT NO. 1782004			FILE REF. Nov 2017 download 303.JPG	
DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
CHECK	VK	11/09/2017	**PHOTO 71**	
REVIEW	JBF	11/09/2017		

Ash Landfill

CAMERA LOCATION:
31.1732N, −96.4962W
(Smartphone GPS)

PHOTO DESCRIPTION:
Hog damage on southern slope of Cell 2.

KEY MAP:

Luminant ENERGY	**ANNUAL INSPECTION − OAK GROVE SES**
	LUMINANT ENERGY
	OAK GROVE, TEXAS
	ASH LANDFILL 1

Golder Associates	PROJECT NO. 1782004			FILE REF. IMG_20171116_104836.jpg	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 1**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.1729N, −96.497W
(Smartphone GPS)

PHOTO DESCRIPTION:
Animal burrow on southern slope of Cell 2.

KEY MAP:

Luminant ENERGY

ANNUAL INSPECTION − OAK GROVE SES

LUMINANT ENERGY

OAK GROVE, TEXAS

ASH LANDFILL 1

Golder Associates

PROJECT NO. 1782004			FILE REF. IMG_20171116_105224.jpg	
DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
CHECK	VK	11/09/2017	**PHOTO 2**	
REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.1719N, −96.4973W
(Smartphone GPS)

PHOTO DESCRIPTION:
Cell 3 south slope (eastern half).

KEY MAP:

Luminant ENERGY	ANNUAL INSPECTION − OAK GROVE SES				
	LUMINANT ENERGY				
	OAK GROVE, TEXAS				
	ASH LANDFILL 1				
Golder Associates	PROJECT NO. 1782004			FILE REF. IMG_20171116_105809.jpg	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 3**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.1715N, −96.498W
(Smartphone GPS)

PHOTO DESCRIPTION:
Seepage below concrete block downchute of southern Cell 3 slope perimeter.

KEY MAP:

Luminant ENERGY	ANNUAL INSPECTION − OAK GROVE SES			
	LUMINANT ENERGY			
	OAK GROVE, TEXAS			
	ASH LANDFILL 1			
Golder Associates	PROJECT NO. 1782004		FILE REF. IMG_20171116_110236.jpg	
	DESIGN	VK	11/09/2017	SCALE: NTS REV: 0
	CHECK	VK	11/09/2017	**PHOTO 4**
	REVIEW	JBF	11/09/2017	

CAMERA LOCATION:
31.1713N, −96.499W
(Smartphone GPS)

PHOTO DESCRIPTION:
Cell 3 south slope (western half).

KEY MAP:

Luminant ENERGY	ANNUAL INSPECTION − OAK GROVE SES			
	LUMINANT ENERGY			
	OAK GROVE, TEXAS			
	ASH LANDFILL 1			
Golder Associates	PROJECT NO. 1782004		FILE REF. IMG_20171116_110615.jpg	
	DESIGN	VK	11/09/2017	SCALE: NTS REV: 0
	CHECK	VK	11/09/2017	**PHOTO 5**
	REVIEW	JBF	11/09/2017	

CAMERA LOCATION:
31.1714N, −96.4989W
(Smartphone GPS)

PHOTO DESCRIPTION:
Internal slope of Cell 3 with vegetation.

KEY MAP:

Luminant ENERGY	**ANNUAL INSPECTION − OAK GROVE SES**
	LUMINANT ENERGY
	OAK GROVE, TEXAS
ASH LANDFILL 1	

Golder Associates	PROJECT NO. 1782004			FILE REF. IMG_20171116_110754.jpg	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 6**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.1738N, −96.4959W
(Smartphone GPS)

PHOTO DESCRIPTION:
HDPE geomembrane−lined downchute at west end of Cell 1 southern slope.

KEY MAP:

Luminant ENERGY	**ANNUAL INSPECTION − OAK GROVE SES**
	LUMINANT ENERGY
	OAK GROVE, TEXAS
ASH LANDFILL 1	

Golder Associates	PROJECT NO. 1782004			FILE REF. IMG_20171116_122922.jpg	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 7**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.1746N, −96.4942W
(Smartphone GPS)

PHOTO DESCRIPTION:
Hog damage on southern slope of Cell 1.

KEY MAP:

Luminant ENERGY	**ANNUAL INSPECTION − OAK GROVE SES**
	LUMINANT ENERGY
	OAK GROVE, TEXAS
	ASH LANDFILL 1

Golder Associates	PROJECT NO. 1782004			FILE REF. IMG_20171116_123508.jpg	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 8**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.1758N, −96.4933W
(Smartphone GPS)

PHOTO DESCRIPTION:
Eastern slope of Cell 1 − south half.

KEY MAP:

Luminant ENERGY			ANNUAL INSPECTION − OAK GROVE SES		
			LUMINANT ENERGY		
			OAK GROVE, TEXAS		
			ASH LANDFILL 1		
Golder Associates			PROJECT NO. 1782004		FILE REF. IMG_20171116_124127.jpg
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 9**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.1774N, −96.4944W
(Smartphone GPS)

PHOTO DESCRIPTION:
HDPE geomembrane−lined downchute at Cell 1 eastern slope.

KEY MAP:

Luminant ENERGY	**ANNUAL INSPECTION − OAK GROVE SES**
	LUMINANT ENERGY
	OAK GROVE, TEXAS
	ASH LANDFILL 1

Golder Associates	PROJECT NO. 1782004			FILE REF. IMG_20171116_124617.jpg	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 10**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.1774N, −96.4946W
(Smartphone GPS)

PHOTO DESCRIPTION:
Eastern slope of Cell 1 − north half.

KEY MAP:

Luminant ENERGY	**ANNUAL INSPECTION − OAK GROVE SES**
	LUMINANT ENERGY
	OAK GROVE, TEXAS
	ASH LANDFILL 1

Golder Associates	PROJECT NO. 1782004			FILE REF. IMG_20171116_124905.jpg	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 11**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.1785N, −96.4971W
(Smartphone GPS)

PHOTO DESCRIPTION:
Rilling on final cover on top of Cell 1 − north corner (central).

KEY MAP:

Luminant ENERGY	**ANNUAL INSPECTION − OAK GROVE SES**
	LUMINANT ENERGY
	OAK GROVE, TEXAS
	ASH LANDFILL 1

Golder Associates	PROJECT NO. 1782004			FILE REF. IMG_20171116_125859.jpg	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 12**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.1781N, −96.4977W
(Smartphone GPS)

PHOTO DESCRIPTION:
Erosion rills on north slope of Cell 1 (central)

KEY MAP:

Luminant ENERGY	ANNUAL INSPECTION − OAK GROVE SES			
	LUMINANT ENERGY			
	OAK GROVE, TEXAS			
	ASH LANDFILL 1			
Golder Associates	PROJECT NO. 1782004		FILE REF. IMG_20171116_130338.jpg	
	DESIGN	VK	11/09/2017	SCALE: NTS REV: 0
	CHECK	VK	11/09/2017	**PHOTO 13**
	REVIEW	JBF	11/09/2017	

CAMERA LOCATION:
31.1777N, −96.4954W
(Smartphone GPS)

PHOTO DESCRIPTION:
Repairs filled with gravel on eastern lower bench of Cell 1.

KEY MAP:

Luminant ENERGY	**ANNUAL INSPECTION − OAK GROVE SES**
	LUMINANT ENERGY
	OAK GROVE, TEXAS
	ASH LANDFILL 1

Golder Associates	PROJECT NO. 1782004			FILE REF. IMG_20171116_131428.jpg	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 14**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.177N, −96.495W
(Smartphone GPS)

PHOTO DESCRIPTION:
Minor ponding and vegetation at the top of geomembrane downchute on Cell 1 eastern slope.

KEY MAP:

Luminant ENERGY	ANNUAL INSPECTION − OAK GROVE SES			
	LUMINANT ENERGY			
	OAK GROVE, TEXAS			
	ASH LANDFILL 1			
Golder Associates	PROJECT NO. 1782004		FILE REF. IMG_20171116_131652.jpg	
	DESIGN	VK	11/09/2017	SCALE: NTS REV: 0
	CHECK	VK	11/09/2017	**PHOTO 15**
	REVIEW	JBF	11/09/2017	

CAMERA LOCATION:
31.1749N, −96.4944W
(Smartphone GPS)

PHOTO DESCRIPTION:
Erosion rills on upper bench of southern slope of Cell 1.

KEY MAP:

Luminant ENERGY	ANNUAL INSPECTION − OAK GROVE SES			
	LUMINANT ENERGY			
	OAK GROVE, TEXAS			
	ASH LANDFILL 1			
Golder Associates	PROJECT NO. 1782004		FILE REF. IMG_20171116_132512.jpg	
	DESIGN	VK	11/09/2017	SCALE: NTS REV: 0
	CHECK	VK	11/09/2017	**PHOTO 16**
	REVIEW	JBF	11/09/2017	

CAMERA LOCATION:
31.1749N, −96.503W
(Smartphone GPS)

PHOTO DESCRIPTION:
Vegetation on the floor of Cell 4.

KEY MAP:

Luminant ENERGY

ANNUAL INSPECTION − OAK GROVE SES

LUMINANT ENERGY

OAK GROVE, TEXAS

ASH LANDFILL 1

Golder Associates

PROJECT NO. 1782004			FILE REF. IMG_20171116_134136.jpg	
DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
CHECK	VK	11/09/2017	**PHOTO 17**	
REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.1739N, −96.5037W
(Smartphone GPS)

PHOTO DESCRIPTION:
Erosion and sparse vegetation on western slope of Cell 4.

KEY MAP:

Luminant ENERGY	**ANNUAL INSPECTION − OAK GROVE SES**
	LUMINANT ENERGY
	OAK GROVE, TEXAS
	ASH LANDFILL 1

Golder Associates	PROJECT NO. 1782004			FILE REF. IMG_20171116_134537.jpg	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 18**	
	REVIEW	JBF	11/09/2017		

CAMERA LOCATION:
31.171N, −96.5014W
(Smartphone GPS)

PHOTO DESCRIPTION:
Erosion on Cell 4 – SW corner of embankment.

KEY MAP:

Luminant ENERGY	ANNUAL INSPECTION – OAK GROVE SES			
	LUMINANT ENERGY			
	OAK GROVE, TEXAS			
	ASH LANDFILL 1			
Golder Associates	PROJECT NO. 1782004		FILE REF. IMG_20171116_134900.jpg	
	DESIGN	VK	11/09/2017	SCALE: NTS / REV: 0
	CHECK	VK	11/09/2017	**PHOTO 19**
	REVIEW	JBF	11/09/2017	

CAMERA LOCATION:
31.1712N, −96.4993W
(Smartphone GPS)

PHOTO DESCRIPTION:
Large erosion rills on Cell 4 – southern embankment.

KEY MAP:

Luminant ENERGY	ANNUAL INSPECTION – OAK GROVE SES			
	LUMINANT ENERGY			
	OAK GROVE, TEXAS			
	ASH LANDFILL 1			
Golder Associates	PROJECT NO. 1782004		FILE REF. IMG_20171116_135113.jpg	
	DESIGN	VK	11/09/2017	SCALE: NTS REV: 0
	CHECK	VK	11/09/2017	**PHOTO 20**
	REVIEW	JBF	11/09/2017	

CAMERA LOCATION:
31.1716N, −96.499W
(Smartphone GPS)

PHOTO DESCRIPTION:
Vegetation on internal slopes of Cell 4 − SW corner.

KEY MAP:

Luminant ENERGY	**ANNUAL INSPECTION − OAK GROVE SES**
	LUMINANT ENERGY
	OAK GROVE, TEXAS
	ASH LANDFILL 1

Golder Associates	PROJECT NO. 1782004			FILE REF. IMG_20171116_140047.jpg	
	DESIGN	VK	11/09/2017	SCALE: NTS	REV: 0
	CHECK	VK	11/09/2017	**PHOTO 21**	
	REVIEW	JBF	11/09/2017		

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Engineering Earth's Development, Preserving Earth's Integrity