

SKYLINE LANDFILL APPENDIX E2 SITE EXPLORATION DATA

Boring Plan Approval Letter Boring and Well Location Map Logs of Borings, Piezometers, and Monitoring Wells

E2-1 E2-2 E2-3 through E2-284 Bryan W. Shaw, Ph.D., Chairman Buddy Garcia, Commissioner Carlos Rubinstein, Commissioner Mark R. Vickery, P.G., Executive Director



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution
May 3, 2011

Mr. Walter C. Hunt, P.E.
Engineering Manager
North Texas, Oklahoma, and Arkansas Market Area
Waste Management of Texas, Inc.
P. O. Box 400
Ferris, Texas 75125-0400

Re: Waste Management Skyline Recycling and Disposal Facility – Dallas and Ellis

Counties

Municipal Solid Waste (MSW) - Permit No. 42C

Proposed Site Investigation

Tracking Nos. 14644996 and 14676474

Dear Mr. Hunt:

We received a revised soil boring plan (SBP) on April 26, 2011, for the referenced MSW landfill facility, in response to our letter dated April 11, 2011. The revised SBP is dated April 21, 2011, and was submitted on your behalf by Ms. Elizabeth Floyd, P.G., of Biggs & Mathews Environmental, Mansfield, Texas.

The revised SBP proposes 22 borings in an approximately 129.1-acre expansion area, including 106.8 acres of existing permitted landfill footprint proposed to be deepened, and 22.3 acres of the property that has not previously been part of the footprint. The revised SBP states that all of the borings will be drilled to an elevation at least 30 feet deeper than the elevation of the deepest excavation (proposed at 377 feet above sea level). Our review indicates that the revised plan complies with the Municipal Solid Waste Regulations; this letter constitutes approval of the plan.

Please be advised that under Title 30 Texas Administrative Code, Chapter 330, Section 330.63(e)(4)(B), the uppermost aquifer and any hydraulically interconnected aquifers below the site must be identified, as well as the underlying confining unit. It is anticipated that this SBP, when implemented, will accurately characterize the in-situ geologic, hydrologic, and engineering properties of the surface and subsurface strata at this site. Although this plan appears to comply with the Municipal Solid Waste Regulations concerning site investigations, additional soil borings and piezometers could be required by the Commission if the data generated by this SBP is inconclusive.

If you should find it necessary to modify this approved SBP, another plan detailing any proposed modifications must be submitted to the Commission for approval before implementation of the modifications.

Figure E2-1 (page 1 of 2)

Mr. Walter C. Hunt, P.E. Page 2 May 3, 2011

If you have questions regarding this letter, please contact me by telephone at (512) 239-4419, or in writing at the address on our letterhead (please include mail code MC 124 on the first line of our address).

Sincerely,

Arten J. Avakian, P.G.

Municipal Solid Waste Permits Section

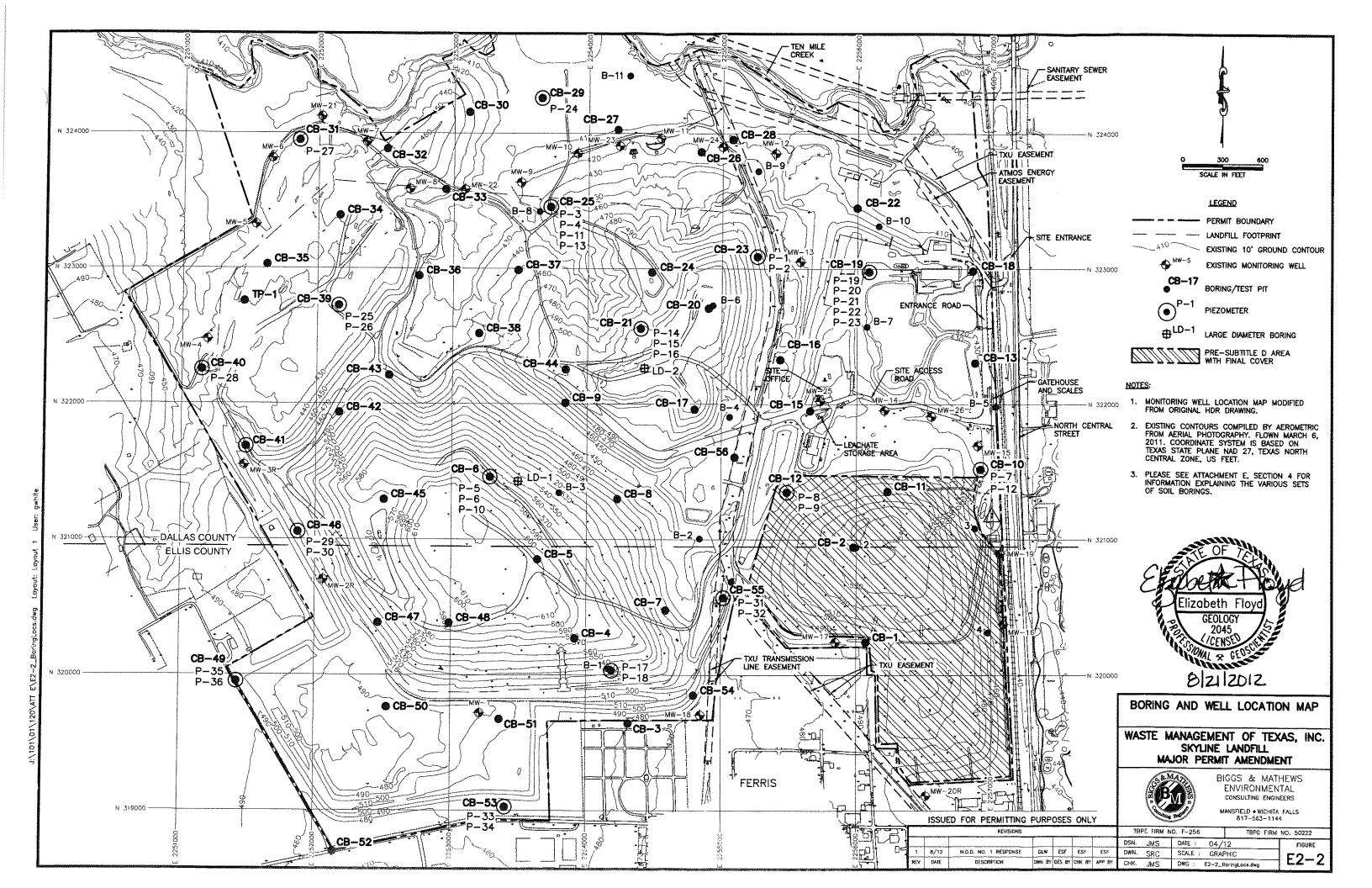
Waste Permits Division

Texas Commission on Environmental Quality

AJA/fp

cc: Ms. Paula Carboni, Waste Management of Texas, Inc., Ferris

Ms. Elizabeth Floyd, P.G., Biggs & Mathews Environmental, Mansfield



Samples Symbol / USCS	Completion Depth: Date Boring Started: Date Boring Completed: MA CLAY, tan (FILL)	472.9 ft. msi 140.0 ft. 7(2101 7(2201 ATERIAL DESCRIPTION 1 Boring Log - See Nanic material	ote 1 ******* (F	FILL)	456.1 452.1 448.1	Hand Penetrometer, tsf	Penetration Blows/Foot	Moisture Content, %	Unit Dry Weight, lb/cu ft.	Liquid Limit	Plastic Limit	Plasticity Index	% Passing No. 200 Sieve	Unc. Compressive
	**************************************	anic material clay w/ weathered calc	(F	FILL) ules	452.1									
	Very stiff tan and gray of and selenite Hard tan and gray clay w/ iron stains	anic material clay w/ weathered calc	(F	FILL) ules	452.1									
U U	Hard tan and gray clay w/ iron stains	clay w/ weathered cald	careous nodu	· · · · · · · · · · · · · · · · · · ·	448.1									
U U	w/ iron stains			(CH)				- 1					. 1	
ט	Hard dark gray clay		,	יחטן	1			27		79	24	55		
U				v 9	442.1									
								22		69	30	39		
Ü	*******	14004 m		(CH)										
U	CLAY, dark gray, hard (d 1991 Boring Log *** CH)			421.1									-
2											A COMPANY OF THE PARTY OF THE P	A. A		

Contractor:	LandTec	Groundwater Obse	ervations F	Remark	ks: Gro	outed.	Note	1: Ele	vation	456.1				
Method: g Method: st/Engineer: lo.:	Auger and Core Core Jeremy Featherston 101.01.120	Date C	Depth i	410.9' d applicat interval	drilled b tion. Lit are fro	y HDF hologi m orig	t as pa c desc inal bo	art of t cription oring le	he 199 ns for t og.	91 ner	mit		M	
	ontractor: lethod: Method: VEngineer: o.:	ontractor: LandTec lethod: Auger and Core lethod: Core l/Engineer: Jeremy Featherston 101.01.120 ORING NO. CB-56	ontractor: LandTec Groundwater Observed Method: Core Hengineer: Jeremy Featherston o.: 101.01.120 The stratification of the control of the co	ontractor: LandTec Groundwater Observations Date Depth Method: Core WEngineer: Jeremy Featherston o.: 101.01.120 ORING NO. CB-56 The stratification lines repr	ontractor: LandTec Groundwater Observations lethod: Auger and Core Date Depth Applica interval Delication	ontractor: LandTec Groundwater Observations Auger and Core Method: Core Method: Jeremy Featherston o.: 101.01.120 GORING NO. CB-56 Groundwater Observations Auger and Core Date Depth Application. Litter interval are from the stratification lines represent approximation of the st	ontractor: LandTec Groundwater Observations lethod: Auger and Core Method: Core Method: Jeremy Featherston o.: 101.01.120 ORING NO. CB-56 Groundwater Observations Date Depth Alo.9' drilled by HDF application. Lithologic interval are from originate statistication lines represent approximate statistication lines represent ap	ontractor: LandTec Groundwater Observations lethod: Auger and Core Method: Core Method: Groundwater Observations Date Depth Application. Lithologic descriptions interval are from original between the strate of the stratification lines represent approximate strate.	ontractor: LandTec Groundwater Observations lethod: Auger and Core Method: Core Method: Jeremy Featherston o.: 101.01.120 GORING NO. CB-56 Groundwater Observations Date Depth Alo.9' drilled by HDR as part of tapplication. Lithologic description interval are from original boring lethologic description interval are from original borin	ontractor: LandTec Groundwater Observations lethod: Auger and Core Method: Core Method: Groundwater Observations Date Depth Auger and Core Method: Groundwater Observations Date Depth Application. Lithologic descriptions for interval are from original boring log. ORING NO. CB-56 The stratification lines represent approximate strata boundaries.	ontractor: LandTec lethod: Auger and Core lethod: Core lethod: Core lethod: Grey Jeremy Featherston o.: 101.01.120 GORING NO. CB-56 Groundwater Observations Date Depth Dept	ontractor: LandTec Groundwater Observations Date Depth Sensity of the stratification lines represent approximate strata boundaries. Cont Depth Sensity of the stratification lines represent approximate strata boundaries. Cont Depth Sensity of the stratification lines represent approximate strata boundaries. Cont Depth Sensity of the stratification lines represent approximate strata boundaries. Cont Depth Sensity of the stratification lines represent approximate strata boundaries. Cont Depth Sensity of the stratification lines represent approximate strata boundaries.	ontractor: LandTec lethod: Auger and Core Method: Core Method: Core Method: Jeremy Featherston o.: 101.01.120 ORING NO. CB-56 The stratification lines represent approximate strata boundaries. In situ, the transition may be gradual. Remarks: Grouted. Note 1; Elevation 456.1' - 410.9' drilled by HDR as part of the 1991 permit application. Lithologic descriptions for that interval are from original boring log. Continued Continued Continued	ontractor: LandTec Auger and Core Method: Date Depth Depth Depth Jeremy Featherston o.: 101.01.120 GORING NO. CB-56 Groundwater Observations Date Depth De

	LOG OF BORING NO Project Description: Skyline Recycling and Disposal Facility 1201 North Central Avenue, Ferris								G NO. CB-56 Biggs and Mathews 1700 Robert Road Mansfield TX 76063 Phone: 817-563-1144 Fax: 817-561-1244							
je programa postava. Je postava postava.	Depth, feet	Samples	Symbol / USCS	Surface El.: Completion Depth: Date Boring Started: Date Boring Completed:	99.8 N 321607.3 472.9 ft. msl 140.0 ft. 7(21)11 7(22)11			Hand Penetrometer, tsf	Penetration Blows/Foot	Moisture Content, %	Ţ	Liquid Limit	Plastic Limit	Plasticity Index	% Passing No. 200 Sieve	Unc. Compressive Strength, tsf
A TEMPLATE GOT 7/31/12	110 110 110 115 120 130 140 140 155 160 170	C5		CLAY, dark gray, hard (DN	332.9	H	ā.							
E LOG DISPLAY TO TENTHS	90 95 95 Orilling Orilling Samplir Seologi	Meth ng Me ist/En	od: ethod:	Auger and Core Core	Groundwater Obse	ervations Depth	Remarks: Gr 410.9' drilled application. Li interval are fro	by HD itholog	R as p iic des	art of	the 19	91 nei	rmit		BM	NS 3 c

LOG OF BORING NO. CB-56 PAGE 2 OF 2

The stratification lines represent approximate strata boundaries. In situ, the transition may be gradual.

LOG OF BORING NO. CB-33 WASTE MANAGEMENT OF TEXAS SKYLINE LANDFILL EXPANSION FERRIS, TEXAS TYPE OF BORING: Undisturbed LOCATION: See Plan Of Borings SHEAR STRENGTH IN TONS/SQ. FT. SOIL DESCRIPTION PLASTIC LIMIT MOISTURE CONTENT & COURT ELEVATION: 432.0 Stiff brown clay (CH) Very stiff tan and gray clay w/ selenite filled fissure

-w/ vertical iron stained fissure (CH) Hard dark gray clay 65 23

MONITORING WELL DATA SHEETS

1

Monitor Well Data Sheet

Permittee or Site Name: Skyline Recycling and Disposal F	Facility MSW Permit No.: 42-C
County: Dallas	Monitor Well I.D. No.: MW-1
Date of Monitor Well Installation5/23/95	Date of Monitor Well
Monitor Well Latitude: Longitude:	
Monitor Well Groundwater Gradient Position:	Monitor Well Driller
Upgradient X Downgradient	Name: William P. McGuire
_	License No.: 2763M

NOTES:

- Report all depths from Surface Elevation and all Elevations relative to Mean Sea Level (MSL), to nearest hundredth of a foot.
- Diameter of boring should be at least 4 inches larger than diameter of well casing.
- Use flush screw joint casing only, 2-inch diameter or larger, with o-rings or PTFE tape in joints (4-inch diameter recommend).
- Well development should continue until water is clear, and pH and conductivity are stable.

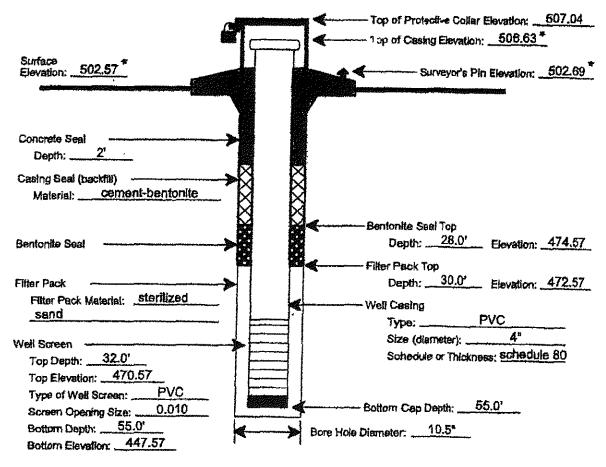
Geologist, Hydrologist, or Engineer Supervising Well Installation: Plerce L. Chandler, Jr. P.E.

Static Water Level Elevation (with respect to MSL) after Well Development: 488.18

Name of Geologic Formation(s) in which Well is completed: Taylor Mari

Type of Locking Device: Padlock Type of Casing Protection: 6" Steel Tube

Concrete Surface Pad (with steel reinforcement) Dimensions: 6' x 6'



TCEQ-10308

A. Monitor W	en Data	Sneet	Division of Solid Waste Manager
Permittee or Site Name: Skylinc	RDF	TOH Pe	SE. 67 (3/1/89-8) armai No. : 42-C
County: Dallas and Ellis Counties			Well I.D. No.: MW-4
Date of Monitor Well Installation: 5-1	2-95		Monitor Well
Monitor Well: State Plane N: 3224	75.770 E: 225	461.562	oment: *
Monitor Well Groundwater		Monker V	
Gradient: Upgradient Downgo	radient Cros		
NOTE:		,	No.: 2763M
(A) The information shown in the sketch belief (B) Report All Depths from Surface Elevation (C) The minimum distance between the inside (D) Use Flush Screw Joint Casing only, 2" (E) Well development should continue until	on and all Elevation le wall of the Bose I diameter or larger. water is clear, and p	s relative to Mean Sea Level Hole and the outside of the V Recommend 4" diameter mi H and conductivity are stabl	l. Vell Casing shall be 3". inimum & Tellon Taping Casing Joints. le.
Geologist, Hydrologist or Engineer Supervisi Static Water Level Elevation (with respect to			f a E. a
Name of Geologic Formation(s) in which Well	*		IPPORTUNE ACCOUNTY
		344 2734 3	
Type of Locking Device: Padlock		of Casing Protection: 6	Steel Tube
Concrete Surface Pad - Recommend stereinforcement in the Surface Pad. Surface Pad Dimensions: 6' x 6' square Lurface Elevation: 433.82 Concrete Seal Depth: 2' bgs Casing Seal (Backfill) Material: cement-bentonite Bentonite Seal Filter Pack Titer Pack Material: #20-#40 Sterifized Sand or Glass Beads		entonite Seat Top Depth: 3' be	in Elevation: 434.32
Vell Screen Top Depth: 7 bgs Top Elevation: 426.82 Type of Well Screen: PVC Screen Opening Size: 0.010"	Be	Neil Casing Type: PVC Size (diameter): 4" Schedule or Thickness oftom Cap (Depth: 25" Hole Diameter: 10.5" m	bgs)
O.O111	T 50/6	TRIBE LABORATERESS 10.0 III	X 2 3 4

^{*} No water in well through 7-25-95.

A.	Monitor	Well	Data	Sheet	Dh	Texas Department of Health ision of Solid Wasse Manager
Pemille	or Site Name: Sk	yline RDF			TDH Permit No.	SE. 67 (3/1/89-B)
County:	Dallas and Ellis Co	unties			Monitor Well I.D.	
Date of M	onitor Well Installatio	n: 5-11-95			Date of Monitor V	
Monitor V	/ell: State Plane N:	323815.262	E: 2251	654,426	Development:	
	el Groundwater		toring-igh-sing		Monitor Well Driller	
Gradie	ent: Upgradient D	ownoracient	✓ Cross	-Gradient		
NOTE:			MI Commission		License No.: 2763	
(B) Report Al (C) The minim (D) Use Flush (E) Well deve	II Depths from Surface) mun distance between the Surew Joins Casing on Hopment should continu	Elevation and to inside wall ly, 2" diamen o until water i	all Elevations of the Bore F er or larger, 1 s clear, and p	relative to Mea lole and the outs Recommend 4" o If and conductive	n Sca Level. ide of the Well Casi liameter minimum & ity are stable.	talled ground-water mention well ig shall be 3". : Teflon Taping Casing Joints.
	drologist or Engineer Su					,
	evel Elevation (with response	-		,		
	ogic Formation(s) in white		bietec: ray	IOT MATI		
· ·	sing Device: Padioci		- Type	of Casing Prot	ection: 6" Siccl 1	ube
		no sleel		•	ective Collar Elevation:	
Urface	3 C	- It-		•	•	
Elevation: 41	6.81	esera escal f		Su Su	rveyor's Pin Eleva	dion: 417.31
	s	B. Cocker Communication of the	A	entonite Seat · De er Pack Top		Elevation: <u>413.81</u>
Filter Pack Ma	terial: #20-#40				Depth: 5' bas	Elevation: 411.81
Sterilized Sand	or Glass Beads		Fi			
•	•		- W	Vell Casing		
Well Screen				Type: PVC		
Top Depth:		眉	劃	Size (diamete	r): 4"	ule 90
Top Elevali			=	SCUBOUS OF	Thickness: school	are av
	Screen: PVC		∃ ∤			
Screen Open			Вс	itiom Cap (Depth: 25' bgs)	
0.010"	HA CILE.		- Bara	khis Diamets	: 10.5* mîn.	
A-43 A		Γ.	- Sold	Med Protestat	4 2.2.2 312.22.	•

^{*} Trace of water in well of EL.394.81.

Monitor Well Data Sheet Texas Department of Health A. Division of Solid Waste Manageme. SE. 67 (3/1/89-B) Permittee or Site Name: Skyline RDF TDH Permit No.: 42-C County: Dailas and Ellis Counties Monitor Well I.D. No.: MW-7 Date of Monitor Well Installation: 5-10-95 Date of Monitor Well Monitor Well: State Plane N: 323936.083 E: 2252352.735 Development: * Monitor Well Groundwater Monitor Well Driller Gradient: Upgradient ___ Downgradient ___ Cross-Gradient Name: William P. McGuire NOTE: License No.: 2763M (A) The information shown in the sketch below should be considered the minimum required for an installed ground-water monitor well. (B) Report All Depths from Surface Elevation and all Elevations relative to Mean Sea Level. (C) The minimum distance between the inside wall of the Bore Hole and the outside of the Well Casing shall be 3". (D) Use Flush Screw Joint Casing only, 2" diameter or larger. Recommend 4" diameter minimum & Tellon Taping Casing Joints. (E) Well development should continue until water is clear, and pH and conductivity are stable. Geologist, Hydrologist or Engineer Supervising Well Installation: Pierce L. Chandler, Jr. P.E. Static Water Level Elevation (with respect to MSL) after Well Development: * Name of Geologic Formation(s) in which Well is completed: Taylor Mark Type of Locking Device: Padlock Type of Casing Protection: 6" Steel Tube Concrete Surface Pad - Recommend steel reinforcement in the Surface Pad. Top of Protective Collar Elevation: 432.92 Surface Pad Dimensions: Top of Casing Elevation: 432.67 < x 6' square ace -Surveyor's Pin Elevation: 430.23 vation: 429.73 Concrete Seal Depth: 2' bgs Casing Seal (Backfill) -Material: cement-bentonite -Bentonite Seat Top Bentonite Seal -Depth: 3' bgs Elevation: 426.73 Filter Pack __ Filter Pack Top Depth: 5' bgs Elevation: 424.73 Filter Pack Material: #20-#40 Sterilized Sandor Glass Beads · Well Casing Well Screen -Type: PVC Size (diameter): 4" Top Depth: 7' bgs Schedule or Thickness: schedule 80 Top Elevation: 422.73 Type of Well Screen: PVC Bottom Cap (Depth: 25' bgs) preen Opening Size: 0.010 Bore Hole Diameter: 10.5" min.

^{*} No water in well through 7-25-95.

Monitor Well Data Sheet Texas Department of Health Division of Solid Wasse Management SE. 67 (3/1/89-8) permittee or Site Name: Skyline RDF TDH Permit No.: 42-C County: Dallas and Ellis Counties Monitor Well I.D. No.: MW-10 Date of Monitor Well Installation: 5-23-95 Date of Monitor Well Monitor Well: State Plane N: 323852.491 E: 2253920.281 7-25-95 Development: Monitor Well Groundwater Monitor Well Driller Gradient: Upgradient ___ Downgradient \(\sqrt{Cross-Gradient} \) Name: William P. McGuire NOTE: License No.: 2763M (A)The information shown in the sketch below should be considered the minimum required for an installed ground-water monitor well, (B) Report All Depths from Surface Elevation and all Elevations relative to Mean Sea Level. (C) The minimum distance between the inside wall of the Bore Hole and the outside of the Well Caxing shall be 3". (D) Use Flush Screw Joint Casing only, 2" diameter or larger. Recommend 4" diameter minimum & Tellon Taping Casing Joints. (E) Well development should continue until water is clear, and pill and conductivity are stable. Geologist, Hydrologist or Engineer Supervising Well Installation: Pierce L. Chandler, Jr. P.E. Static Water Level Elevation (with respect to MSL) after Well Development: 410,15 Name of Geologic Formation(s) in which Well is completed: Taylor Marl Type of Locking Device: Padlock Type of Casing Protection: 6" Steel Tube Concrete Surface Pad - Recommend steel reinforcement in the Surface Pad. Top of Protective Colfar Elevation: 417,78 Surface Pad Dimensions: Top of Casing Elevation: 417.53 6' x 6' square unace -Surveyor's Pin Elevation: 415,80 Elevation: 415.30 Concrete Seal Depth: 2' bgs Casing Seal (Backfill) Material: cement-bentonite Benionite Seat Top Benionite Seal-Depth: 21 bgs Elevation: 394.31 Filter Pack Filter Pack Top Depth: 23.5' bes Elevason: 391.80 Filler Pack Material: #20-#40 (Steriëzed Sand)or Glass Beads Well Casing Well Screen -Type: PVC Size (diameter): 4" Top Depth: 26' bgs Schedule or Thickness: schedule 80 Top Elevation: 389.30 Type of Well Screen: PVC Bottom Cap (Depth: 49' bgs) Screen Opening Size: 0.010* Bore Hole Diameter: 10.5" min.

A. Monitor Well Data Sheet	Division of Solid Waste Management
Permittee or Site Name: Skyline RDF	SE 67 (3/1/89-8)
County: Dallas and Ellis Counties	TDH Permit No. : 42-C
Date of Monitor Well Installation: 5-17-95	Monitor Well I.D. No.: MW-11
Monitor Well: State Plane N: 323967.994 E: 2254536.066	Date of Monitor Well
Monitor Well Groundwater	Development: 7-25-95
Gradient: Upgradient Downgradient Cross-Gradient	Monkor Well Driller
NOTE:	License No.: 2763M
(A)The information shown in the sketch below should be considered the minimum (B) Report All Depths from Surface Elevation and all Elevations relative to Mean (C) The minimum distance between the inside wall of the Bore Hole and the outsi (D) Use Flush Screw Joint Casing only, 2" diameter or larger. Recommend 4" d (E) Well development should continue until water is clear, and pH and conductivity	n required for an installed ground-water monitor well. Sea Level. de of the Well Casing shall be 3". iameter minimum & Tellon Taping Casing Joints.
Geologist, Hydrologist or Engineer Supervising Well Installation; Pierce L. Chr.	
Static Water Level Elevation (with respect to MSL) after Well Development: 4	11.45
Name of Geologic Formation(s) in which Well is completed: Taylor Mari	
Type of Locking Device: Padlock Type of Casing Prote	ection: 6" Steel Tube
Surface Pad Dimensions: 6' x 6' square Jurface Elevation: 415.10 Concrete Seal Depth: 2' bgs Casing Seal (Backfill) Material: cement-bentonite Bentonite Seal	
Filter Pack De	pth: 9.5' bgs Elevation: 405.60
	lepth: 11.5' bzs Elevation: 403.60
Sterilized Sandor Glass Beads	
Well Casing	
Well Screen Type: PVC	
Size (diameter	7:4"
Top Elevation: 401.10	Mickness: schedule 80
Type of Well Screen: PVC Screen Opening Size: Bottom Cap (C	Depth: 37' bgs)
Screen Opening Size:	. 10.5° min

Monitor Well Data Sheet Δ. Texas Department of Health Division of Solid Waste Managemen Permittee or Site Name: Skyline RDF SE 67 (3/1/89-B) TDH Permit No.: 42-C County: Dallas and Ellis Counties Monitor Well I.D. No.: MW-12 Date of Monitor Well Installation: 5-1-95 Date of Monitor Well Monitor Well: State Plane N: 323852.621 E: 2255390.161 Development: Monitor Well Groundwater Monitor Well Driller Gradient: Upgradient ___ Downgradient ___ Cross-Gradient Name: William P. McGuire NOTE: License No.: 2763M (A)The information shown in the sketch below should be considered the minimum required for an installed ground-water monitor well. (B) Report All Depths from Surface Elevation and all Elevations relative to Mean Sea Level. (C) The minimum distance between the inside wall of the Bore Hole and the outside of the Well Casing shall be 3". (D) Use Flush Screw Joine Casing only, 2" diameter or larger. Recommend 4" diameter minimum & Tesson Taping Casing Joints. (E) Well development should continue until water is clear, and pH and conductivity are stable. Geologist, Hydrelogist or Engineer Supervising Well Installation: Pierce L. Chandler, Jr. P.E. Static Water Level Elevation (with respect to MSL) after Well Development : 398.22 Name of Geologic Formation(s) in which Well is completed: Taylor Marl Type of Locking Device: Padlock Type of Casing Protection: 6" Steel Tube Concrete Surface Pad - Recommend steel reinforcement in the Surface Pad. Top of Protective Collar Elevation: 421.37 Surface Pad Dimensions: κ' x 6' square Top of Casing Elevation: ____420.95 face -Surveyor's Pin Elevation: 418.33 vation: 417.83 Concrete Seal Depth; 2' bgs Casing Seal (Backfill) . Material: cement-bentonite Bentonite Seal Top Bentonite Seal -Depth: 3' bgs Elevation: 414.83 Filter Pack Fiter Pack Top Depth: 5' bes Elevation: 412.83 Filter Pack Material: #20-#40 Sterilized Sandor Glass Beads Well Casing Well Screen -Type: PVC Size (diameter): 4" Depth: 7' bes Top Schedule or Thickness: schedule 80 Top Elevation: 410.83 Type of Well Screen: PVC

Bottom Cap (Depth: 22' bgs)

Bore Hole Diameter: 10.5" min.

treen Opening Size:

£010"

A. Monitor W	/ell Data Sheet	Texas Department of Health Division of Solid Waste Managem
emittee or Site Name: Skyline	RDF	SE_ 67 (3/1/89-B)
County: Dallas and Ellis Countie	5	TDH Permit No. : 42-C
Date of Monitor Well Installation: 5-	15-95	Monitor Well I.D. No.: MW-13
Monitor Well: State Plane N: 323	053.928 E: 2255577.483	Date of Monitor Well
Monitor Well Groundwater		Development: *
Gradient: Upgradient Down	gradient <u> </u>	Monitor Well Driller
NOTE:		License No.: 2763M
(C) The minimum distance between the inst	uon and all Elevations relative to Measide wall of the Bore Hole and the outs diameter or larger. Recommend 4° d	in required for an installed ground-water monitor well. In Sea Level. Ide of the Well Casing shall be 3°. Itameter minimum & Tellon Taning Casing loints.
Geologist, Hydrologist or Engineer Supervis	sing Well Installation: Pierce L. Ch.	andler, Jr. P.E.
Static Water Level Elevation (with respect to		
Name of Geologic Formation(s) in which We	il is completed: Taylor Mart	The state of the s
Type of Locking Device: Padlock	Type of Casing Prote	ection: 6" Steel Tube
Concrete Surface Pad - Recommend streinforcement in the Surface Pad. Surface Pad Dimensions: 6' x 6' square rface revation: 432.23 Concrete Seal Depth: 2' bgs Casing Seal (Backfill) Material: cement-bentonite	Top of Prote Top of Casi — Sur	ng Elevation: 435.46 veyor's Pin Elevation: 432.73
Bentonite Seal	Bentonite Sear	
Filter Pack	→ Filter Pack Top	
Sterilized Sandor Glass Beads	0	epth: 5' bes Elevation: 427.23
•	Well Casing	
Well Screen —	Type: PVC	L. 4°
Top Depth: 7' bgs	Size (diameter Schedule or T	hickness: schedule 80
Top Elevation: 425.23		
Type of Well Screen: PVC		0. 351 h.s.
creen Opening Size:	Bottom Cap (D	epth: 43 Ogs)
0.010"	Bore Hole Diameter:	10.5" min.

^{*} No water in well through 7-25-95.

A. Monitor W	ell [)ata	Sheet	Dis	Texas Department of Health ision of Solid Waste Managen
Permittee or Site Name: _Skyline					SE_ 67 (3/1/89-B)
County: Dallas and Ellis Countie		······································		TDH Permit No.	
Date of Monitor Well Installation:					. No.: MW-14
Monitor Well: Latitude: 32°32.83'		ie : 06° 4	ስ ታና፣	Date of Monitor V	Vell .
Monitor Well Groundwater	, congress	. <u>70 4</u>	<u> </u>	Development:	*
Gradient: Upgradient Downg				Monitor Well Driller	
NOTE:	and it			Name: Williar Ucense No.: 27	
(A)The information shown in the sketch bel (B) Report All Depths from Surface Elevation (C) The minimum distance between the inside (D) Use Flush Screw Joint Casing only, 2" (E) Well development should continue until	on and all l le wall of t diameter o	Elevations the B <i>or</i> e H r larger. R	red the minimum relative to Mean ole and the outsid ecommend 4* dis	required for an ins Sea Level. to of the Well Casis	usiled ground-water monitor well or shall be 3°.
Geologist, Hydrologist or Engineer Supervisi	ng Well In:	stallation:_	Pierce L. C	<u>handler, Jr. P.E.</u>	
Static Water Level Elevation (with respect to					
Name of Geologic Formation(s) in which Well	is complet	ted: Tay	lor Mari		
Type of Locking Device: Padlock		Type o	f Casino Protei	ction: 6" Steel	Tube
Concrete Surface Pad - Recommend stereinforcement in the Surface Pad. Surface Pad Dimensions: 6' x 6' square Surface Elevation: EL.463.51 Concrete Seal Depth: 2' bgs Casing Seal (Backfill) Material: cement-bentonite			Top of Casin	g Elevation: <u>E</u> eyor's Pin Eleva	tion: <u>EL.467.10</u> L.466.71 tion: <u>EL.464.33</u>
Sentonite Seal	·	₩ Be	ntonite Seal Ti Den		Elevation: EL.457.51
Filter Pack	• !]	→ Fike	r Pack Top		
Filter Pack Material: #20 - #40 Sterilized Sandor Glass Beads			Oe	pth: <u>8' bes</u>	Elevation: EL.455.51
		₩— W	ell Casing		
Well Screen -	+=		Type: PVC		
Top Depth: 10' bgs			Size (diameter) Schedule or Ti	ickness: sched	ale 80
Top Elevation: EL.453.51					The second second
Type of Well Screen: PVC		<u> </u>	1		
Screen Opening Size:		김 - 801	rom CSD (Di	epth: 32.5' hgs	
0.010"	!	Bore H	ole Diameter:	10.5" min.	

^{*} To be developed when sufficient water accumulates in well.

A. MOINTOF W	ell nata	Sneet	Division of Solid Waste Munager
Permittee or Site Name: <u>Skyline I</u>	RDF	The Pan	SE, 67 (3/1/89-B) wit No. : 42-A
County: Dallas and Ellis Countie	s		ell I.D. No.: MW-15
Date of Monitor Well Installation: 9	/20/94	Date of Mo	
Monitor Well: Latitude: 32°32.83°	Longitude: 96° 40	Developm	
Monitor Well Groundwater		Monitor Wel	
Gradient: Upgradient	adient		Villiam P. McGuire
NOTE:			: 2763M
(A)The information shown in the sketch belo (B) Report All Depths from Surface Elevation (C) The minimum distance between the inside (D) Use Flush Screw Joint Casing only, 2" of (E) Well development should continue until v	n and all Elevations: e wall of the Bore Ho iameter or larger. Ro vater is clear, and pH	relative to Mean Sea Level, se and the outside of the We ecommend 4" diameter mini and conductivity are stable.	ll Casing shall be 3". num & Teflon Taping Casing Joints.
Geologist, Hydrologist or Engineer Supervision			P.E.
Static Water Level Elevation (with respect to &			nu-
Name of Geologic Formation(s) in which Well	is completed: Tay	lor Marl	
Type of Locking Device: Padlock	Type of	Casing Protection: 6"	Steel Tube
Surface Pad Dimensions: 6' x 6' square Surface Elevation: EL.448.66 Concrete Seal Depth: 2' bgs Casing Seal (Backfill) Material: cement-bentonite		Top of Protective Collar Top of Casing Elevation Surveyor's Pin	
Bentonite Seal Filter Pack Filter Pack Material: #20 - #40 Sterilized Sand or Glass Beads Well Screen Top Depth: 8' bgs	Fike W	r Pack Top Depth: 6' bg all Casing Type: PVC Size (diameter): 4"	Elevation: EL.444.66 S Elevation: EL.442.66
Top Elevation: EL.440.66 Type of Well Screen: PVC Screen Opening Size:		Schedule or Thickness: <u>s</u> tom Cap (Depth:2 <u>5.5'</u>	
		A. M	

^{*} To be developed when sufficient water accumulates in well.

A. Monitor Well Data Sneet	Division of Solid Waste Managemet
Permittee or Site Name: Skyline RDF	SE. 67 (3/1/89-B)
County: Dallas and Ellis Counties	TDH Permit No. : 42-A
Date of Monitor Well Installation: 9/20/94	Monitor Well I.D. No.: MW-16
Monitor Well: Latitude: 32°32.83' Longitude: 96°40.25'	Date of Monitor Well
Monitor Well Groundwater	Development: *
Gradient: Upgradient Downgradient	Monitor Well Driller
NOTE:	Name: William P. McGuire License No.: 2763M
(A) The information shown in the sketch below should be considered the minimum (B) Report All Depths from Surface Elevation and all Elevations relative to Meas (C) The minimum distance between the inside wall of the Bore Hole and the outsi (D) Use Flush Screw Joint Casing only, 2" diameter or larger. Recommend 4" d (E) Well development should continue until water is clear, and pH and conductivi	in required for an installed ground-water monitor well. in Sea Level. ide of the Well Casing shall be 3". liameter minimum & Teflon Taping Casing Joints. ty are stable.
Geologist, Hydrologist or Engineer Supervising Well Installation: Pierce L. (Chandler, Jr. P.E.
Static Water Level Elevation (with respect to MSL) after Well Developement :	*
Name of Geologic Formation(s) in which Well is completed: Taylor Marl	
Type of Locking Device: Padlock Type of Casing Prote	ection: 6" Steel Tube
Concrete Seal Oepth: 2' bgs Casing Seal (Backfill) Material: coment-bentonite	rg Elevation: EL.449.56 • veyor's Pin Elevation: EL.447.13
Der Der	oth: 3' bgs Elevation: EL.443.36
Filter Pack ————————————————————————————————————	epth: 5' bgs Elevation: EL.441.36
Well Casing	
Well Screen Type: PVC	
Top Depth: 7' bgs Size (diameter Schedule or 7): <u>4"</u> hickness: <u>schedule</u> 80
Top Elevation: EL.439.36	THE STATE OF THE S
Type of Well Screen: PVC	
Screen Opening Size: Bottom Cap (D	Jeptn:24.5' bgs)
0.010" Bore Hole Diameter	10.5" min

^{*} To be developed when sufficient water accumulates in well.

Α.	Monitor			Sheet	ŗ	Texas Department of Health Division of Solid Wasse Manager
Permittee	or Site Name: Sky	line RDF			TDH Permit No	SE. 67 (3/1/89-B)
County:	Dallas and Ellis Co	unties				D. No.: MW-17
Date of M	onitor Well Installation	ı: <u>9/20/9</u>	4			
Monitor W	/ell: Latitude: <u>32° 32</u>	2.83' Long	tude: 96° 4	10.25	Date of Monitor	
	ell Groundwater		- Thomas	La Contraction of the Contractio	Development:	
Gradie	int: (Upgradient) Do	owngradient			Monitor Well Drill	
NOTE:		3.000	******		License No.: 2	am P. McGuire
(C) The minin (D) Use Flush (E) Well devel	nun distance between the	e inside wall y, 2" diameu until water i	all Elevations of the Bore H or larger. I clear, and pl	relative to Meas lole and the outsi Recommend 4" d If and conductivi	n required for an in a Sea Level, ide of the Well Cas liameter minimum ty are stable.	istalled ground-water monitor well sing shall be 3". & Testion Taping Casing Joints.
	evel Elevation (with respe					
	gic Formation(s) in which				<u> </u>	
	ing Device: Padlo			7107 191811		
reinforcement Surface Pad C 6' x 6' square Surface Elevation: El Concrete Seal Depth: 2' b Casing Seal (Ba	2.489.85	d steel		Top of Protect	ng Elevation:	ation: EL.493.21
Bentonite	Seal ———	— ↓[[Be	intonite Seat T	Гор	
Filter Pac	k		Fike	Dep er Pack Top	on: 31 bgs	Elevation: EL.458.85
	erial: <u>#20 - #40</u> or Glass Beads			D	epth: 33' bgs	Elevation: EL.456.85
•	•		(W	eli Casing		
eli Screen		 =		Type: PVC		
Top Depth:_				Size (diameter)		117
	n: EL.454.85		∃ ‡	ochequie of T	hickness: sched	<u>iule 80</u>
	Screen: PVC		∄ }			
Screen Openin			Bot	ttom Cap (D	epth: 57.5' bgs)	

Bore Hole Diameter: 10.5" min.

0.010"

^{*} To be developed when sufficient water accumulates in well.

A. Monitor Well Data S	neet Division of Solid Waste Manager
Permittee or Site Name: Skyline RDF	SE. 67 (3/1/89-B)
County: Dallas and Ellis Counties	TDH Permit No. : 42-A
Date of Monitor Well Installation: 9/20/94	Monitor Well I.D. No.: MW-18
Monitor Well: Latitude: 32°32.83' Longitude: 96°40.2	Date of Monitor Well
Monitor Well Groundwater	Development.
Gradient: (Upgradient) Downgradient	Monitor Well Driller
NOIE:	Name: William P. McGuire
(A) The information shown in the sketch below should be considered to (B) Report All Depths from Surface Elevation and all Elevations relation (C) The minimum distance between the inside wall of the Bore Hole at (D) Use Flush Screw Joint Casing only, 2" diameter or larger. Record (E) Well development should continue until water is clear, and pH and	tive to Mean Sea Level. and the outside of the Well Casing shall be 3". comend 4" diameter minimum & Tellon Taning Casing Injury.
Geologist, Hydrologist or Engineer Supervising Well Installation:	Pierce L. Chandler, Jr. P.E.
Static Water Level Elevation (with respect to MSL) after Well Develope	
Name of Geologic Formation(s) in which Well is completed: <u>Taylor</u>	Marl
Type of Locking Device: Padlock Type of Co	asing Protection: 6" Steel Tube
Surface Pad Dimensions: 6' x 6' square Surface Elevation: EL.467.00 Concrete Seal Depth: 2' bgs Casing Seal (Backfill) Material: cement-bentonite	p of Protective Collar Elevation: _EL.470.73
pentonite Seat	Depth: 21 bgs Elevation: EL.446.00
Filter Pack ————————————————————————————————————	Depth: 23' bgs Elevation: EL.444.00
iller Pack Material: #20 - #40 lerilized Sandor Glass Beads	Deput. 25 0gs CEVAIOII. LL.+14.00
	Casing
	e: PVC (diameter): 4"
Sch	nedule or Thickness: schedule 80
Top Elevation: EL.442.00	
Type of Well Screen: PVC Botton	Cap (Depth: 47.5' bgs)
Screen Opening Size:	The state of the s
41 73 7 4177 Manusan M	Filmonial man 15) Ellippin

^{*} To be developed when sufficient water accumulates in well.