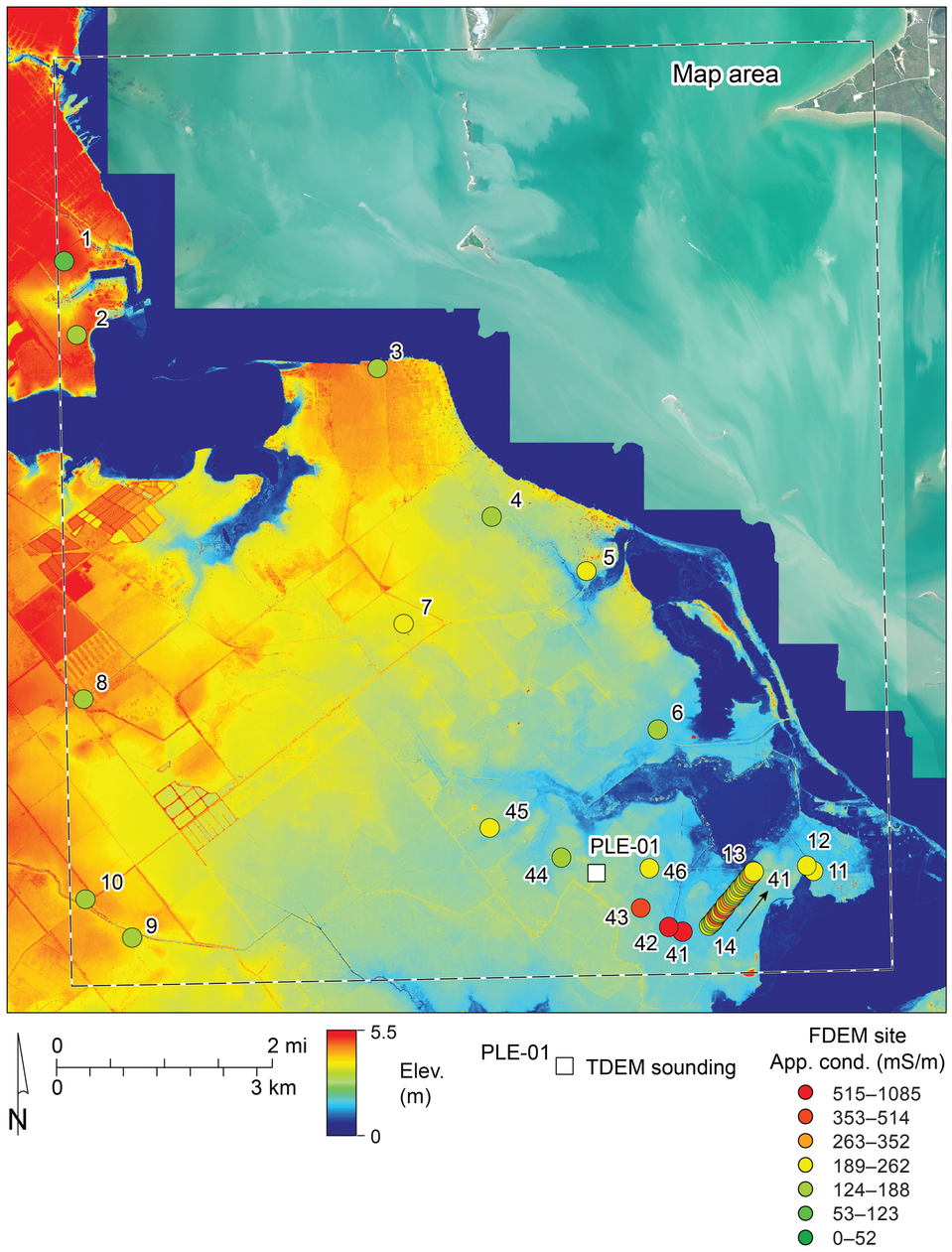
BUREAU OF ECONOMIC GEOLOGY
SCOTT W. TINKER, DIRECTOR
JACKSON SCHOOL OF GEOSCIENCES
THE UNIVERSITY OF TEXAS AT AUSTIN
In cooperation with the State of Texas Advanced Resource Recovery Program
and the U.S. Geological Survey National Cooperative Geologic Mapping Program
under STATEMAP award number G16AS0006, 2016

GEOLOGIC MAP OF THE PORT LAVACA EAST QUADRANGLE
TEXAS GULF OF MEXICO COAST
Open-File Map 0233, Sheet 2: Digital Elevation Model, Time-Domain Electromagnetic Induction Sounding, and Frequency-Domain Electromagnetic Induction Measurements

TIME-DOMAIN ELECTROMAGNETIC INDUCTION SOUNDING AND FREQUENCY-DOMAIN ELECTROMAGNETIC INDUCTION MEASUREMENT LOCATIONS



Digital elevation model (DEM) constructed from airborne lidar survey data acquired by the Bureau of Economic Geology in July 2016. Aerial photography beyond the lidar survey area was flown in 2015 and obtained from the Texas Natural Resources Information System.

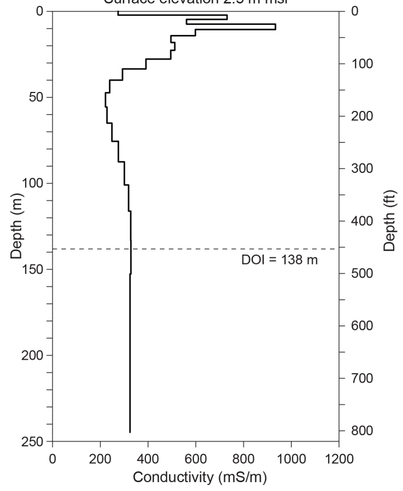
FREQUENCY-DOMAIN ELECTROMAGNETIC INDUCTION MEASUREMENTS

Frequency-domain electromagnetic induction measurements of apparent conductivity measured using Geonics EM31 and EM38 ground-conductivity meters in the horizontal dipole (HD) and vertical dipole (VD) coil orientations. Measurement locations are shown on the map at left. Approximate exploration depth ranges are 0 to 3 m (EM31 HD), 0 to 6 m (EM31 VD), 0 to 0.75 m (EM38 HD), and 0 to 1.5 m (EM38 VD).

FDEM Site	Date (yyyymmdd)	Lon. (°W, WGS84)	Lat. (°N, WGS84)	EM31 HD (mS/m)	EM31 VD (mS/m)	EM38 HD (mS/m)	EM38 VD (mS/m)
1	20170123	96.62394	28.59751	163	172	116	144
2	20170123	96.62221	28.58749	186	196	138	158
3	20170123	96.57653	28.58225	297	298	171	251
4	20170123	96.55959	28.56195	240	244	147	225
5	20170123	96.54525	28.55433	330	317	202	290
6	20170123	96.53488	28.53291	269	225	187	241
7	20170123	96.57328	28.54776	249	212	193	246
8	20170124	96.62232	28.53849	218	197	159	220
9	20170124	96.61569	28.50631	290	268	152	241
10	20170124	96.62263	28.51151	266	254	187	238
11	20170126	96.51163	28.51338	318	297	201	310
12	20170126	96.51254	28.51420	319	259	222	315
13	20170126	96.52080	28.51357	346	344	180	264
14	20170126	96.52772	28.50636	343	330	224	309
15	20170126	96.52735	28.50660	284	323	152	218
16	20170126	96.52712	28.50685	280	329	143	220
17	20170126	96.52685	28.50712	337	321	227	309
18	20170126	96.52656	28.50743	393	345	300	359
19	20170126	96.52631	28.50768	460	292	373	450
20	20170126	96.52604	28.50797	353	316	178	288
21	20170126	96.52579	28.50821	326	296	258	331
22	20170126	96.52553	28.50850	384	344	363	401
23	20170126	96.52526	28.50878	355	313	315	393
24	20170126	96.52509	28.50912	283	294	198	250
25	20170126	96.52474	28.50934	384	330	293	389
26	20170126	96.52447	28.50960	361	347	276	369
27	20170126	96.52421	28.50987	380	325	286	364
28	20170126	96.52397	28.51014	300	294	170	268
29	20170126	96.52369	28.51042	326	298	184	267
30	20170126	96.52341	28.51069	387	350	219	330
31	20170126	96.52314	28.51097	380	296	253	338
32	20170126	96.52287	28.51127	292	325	178	271
33	20170126	96.52262	28.51151	290	287	198	258
34	20170126	96.52234	28.51180	417	372	162	391
35	20170126	96.52209	28.51207	380	342	221	341
36	20170126	96.52185	28.51234	332	295	195	278
37	20170126	96.52157	28.51262	355	301	174	277
38	20170126	96.52132	28.51289	326	338	183	278
39	20170126	96.52104	28.51317	393	352	285	370
40	20170126	96.52076	28.51346	343	370	197	288
41	20170126	96.53180	28.50558	566	337	567	492
42	20170126	96.53378	28.50628	552	218	629	561
43	20170126	96.53806	28.50892	544	365	514	535
44	20170126	96.54996	28.51589	303	344	170	253
45	20170126	96.56082	28.52005	365	329	223	319
46	20170126	96.53653	28.51426	332	344	205	291

BEST-FIT ELECTRICAL CONDUCTIVITY MODEL, TIME-DOMAIN ELECTROMAGNETIC SOUNDING

TDEM PLE-01
Lat. 28.51374° N; Lon. 96.54476° W
Surface elevation 2.5 m msl



A time-domain electromagnetic (TDEM) sounding was acquired by Bureau of Economic Geology staff in 2017 using an ABEM WalkTEM dual-moment instrument. Transmitter loops were circular with a 25.5-m radius. Transmitter current ranged from 1 to 7 amperes. Data were processed using ViewTEM software from Aarhus University.

DOI: Approximate depth of investigation

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