

Dredged Material Workshop
Pasadena, Texas
July 24, 2012

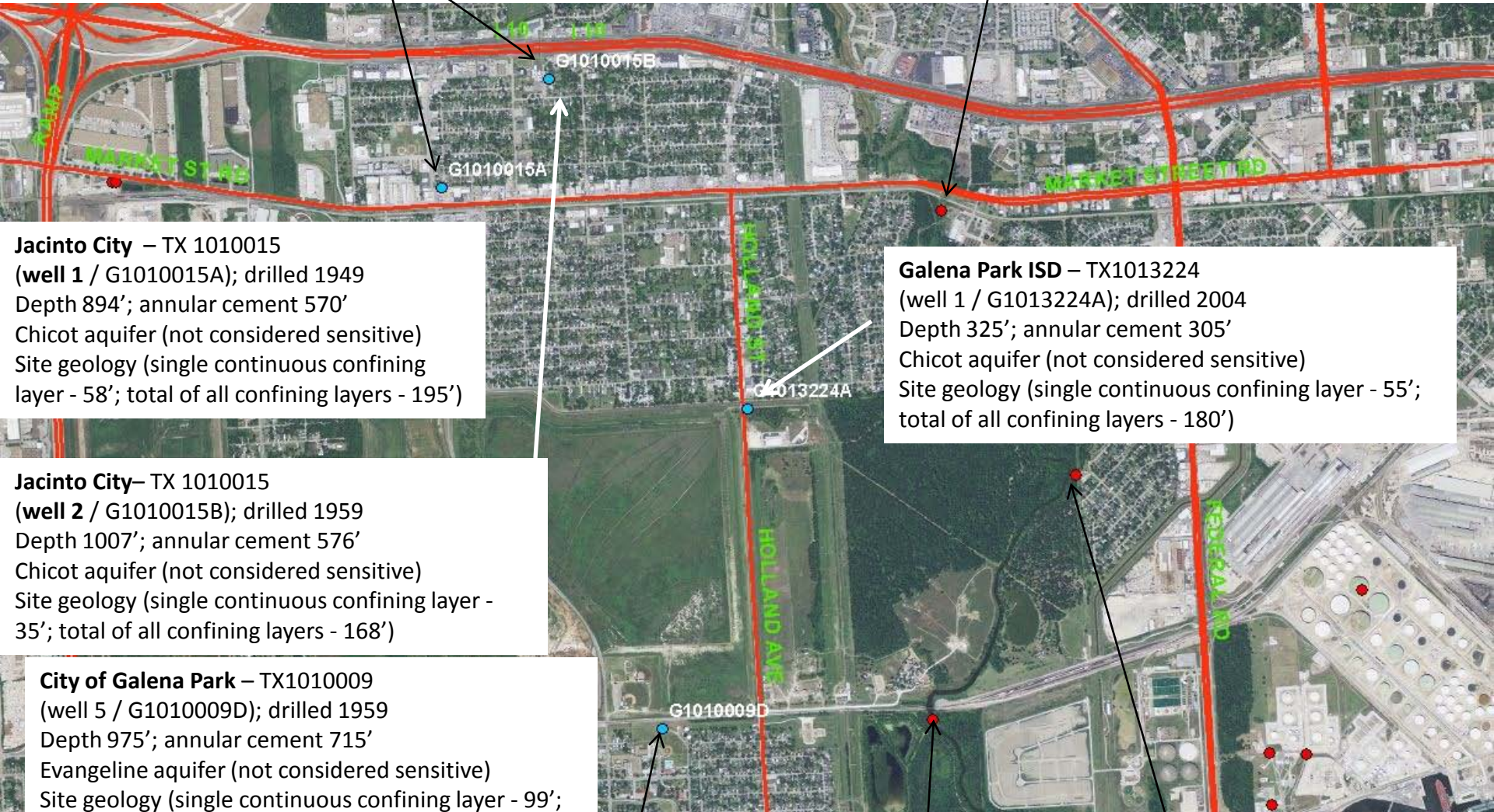
Public Water Wells Update

Blake Atkins, Chief

EPA Region 6 Drinking Water Section

Back up Wells for Jacinto City Public Water System
(Water purchased from City of Houston)

Petroleum Storage Tank



Jacinto City – TX 1010015
(well 1 / G1010015A); drilled 1949
Depth 894'; annular cement 570'
Chicot aquifer (not considered sensitive)
Site geology (single continuous confining layer - 58'; total of all confining layers - 195')

Jacinto City – TX 1010015
(well 2 / G1010015B); drilled 1959
Depth 1007'; annular cement 576'
Chicot aquifer (not considered sensitive)
Site geology (single continuous confining layer - 35'; total of all confining layers - 168')

City of Galena Park – TX1010009
(well 5 / G1010009D); drilled 1959
Depth 975'; annular cement 715'
Evangeline aquifer (not considered sensitive)
Site geology (single continuous confining layer - 99'; total of all confining layers - 377')

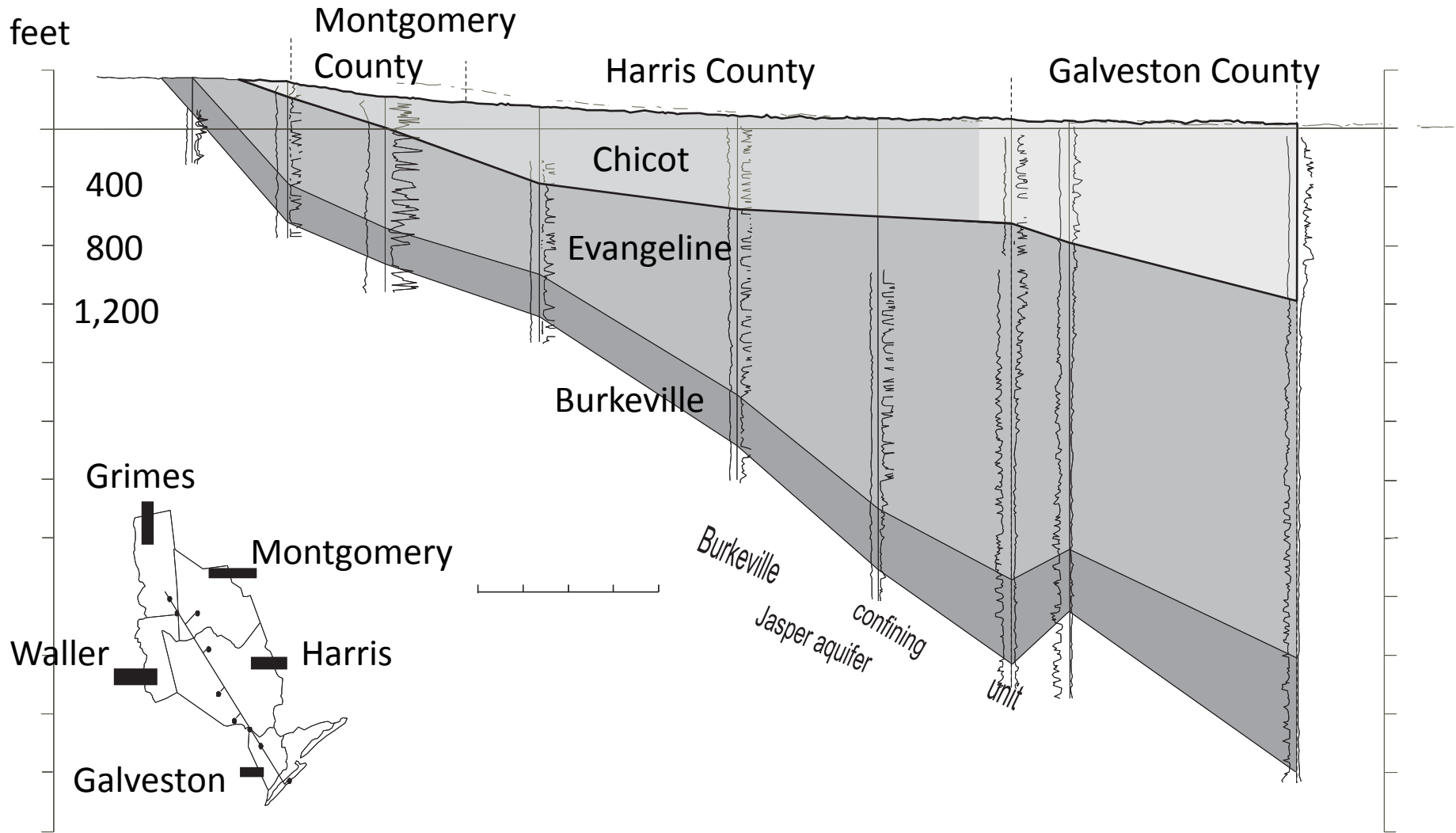
Galena Park ISD – TX1013224
(well 1 / G1013224A); drilled 2004
Depth 325'; annular cement 305'
Chicot aquifer (not considered sensitive)
Site geology (single continuous confining layer - 55'; total of all confining layers - 180')

Back up Well for Galena Park Public Water System
(Water purchased from City of Houston)

Wastewater Plant

Wastewater Outfall

Houston Area Geologic Cross Section



Jacinto City Well Information

- Well 1 drilled 1949 in Chicot aquifer
- 894 feet deep - annular cement to 570 feet
- 58 feet of single continuous confining layer, 195 feet total confining layers
- Well 2 drilled 1959 in Chicot aquifer
- 1,007 feet deep – annular cement to 576 feet
- 35 feet of single continuous confining layer, 168 feet total confining layers

Jacinto City Monitoring Data

Analyte	Maximum Contaminant Level	Detected Level	Date or Range of Dates
Arsenic – naturally occurring	10 ug/L	3.5	2/2011
Barium – naturally occurring	2 mg/L	0.073-0.182	4/2002 – 2/2011
Fluoride – naturally occurring	4 mg/L	0.4 – 0.5	4/2002 – 2/2011
Nitrate – agricultural byproduct	10 mg/L	0.01 – 1.38	4/2002 – 2/2011
Nitrite – agricultural byproduct	1 mg/L	0.18	1/2006
Atrazine – herbicide	3 ug/L	0.37	5/2009
Simazine – pesticide	4 ug/L	0.13	5/2009
Gross Alpha particle emitters - radiochemical	15 pCi/L	3.2	5/2010
Chloroform – disinfection byproduct (DBP)	80 ug/L	2.8 – 28	2/2004 – 10/2011
Dibromochloromethane - DBP	80 ug/L	1.7 – 15	2/2004 – 10/2011
Bromodichloromethane - DBP	80 ug/L	8.2 – 19	2/2004 – 10/2011
Dichloromethane – chemical factory discharge	5 ug/L	1.3	1/2006
Total Xylenes – gasoline component	10 mg/L	0.0043-0.013	2/2011 – 10/2011

Galena Park Well Information

- Well drilled 1959 in Evangeline aquifer
- 975 feet deep – annular cement to 715 feet
- 99 feet of single continuous confining layer, 377 feet total confining layers

Galena Park Monitoring Data

Analyte	Maximum Contaminant Level	Detected Level	Date or Range of Dates
Arsenic – naturally occurring	10 ug/L	2.3	1/2011
Barium – naturally occurring	2 mg/L	0.079	1/2011
Fluoride – naturally occurring	4 mg/L	0.54	1/2011
Nitrate – agricultural byproduct	10 mg/L	0.15	1/2011
Copper – naturally occurring or corrosion of plumbing	1.3 mg/L	0.0084	1/2011
Atrazine – herbicide	3 ug/L	0.15-0.46	2/2009 – 1/2011
Simazine – pesticide	4 ug/L	0.09 – 0.19	2/2009 – 2/2010
Gross Beta particle emitters - radiochemical	20,000 pCi/L	4 – 5	4/2002 – 5/2010
Chloroform – disinfection byproduct (DBP)	80 ug/L	2.3 – 32	6/2006 – 1/2011
Dibromochloromethane - DBP	80 ug/L	1.1 – 3.1	6/2006 – 1/2011
Bromodichloromethane - DBP	80 ug/L	3.4 – 11	6/2006 – 1/2011

Galena Park ISD Well Information

- Well drilled in 2004 in Chicot aquifer
- 325 feet deep – annular cement to 305 feet
- 55 feet of single continuous confining layer, 180 feet total confining layers

Galena Park ISD Monitoring Data

Analyte	Maximum Contaminant Level	Detected Level	Date or Range of Dates
Barium – naturally occurring	2 mg/L	0.105-0.107	4/2007 – 2/2009
Fluoride – naturally occurring	4 mg/L	0.52 – 0.6	9/2004 – 1/2010
Nitrate – agricultural byproduct	10 mg/L	0.01 – 0.05	2/2006 – 1/2010
Lead – naturally occurring or corrosion of plumbing	15 ug/L	1.9	4/2007
Chloroform – disinfection byproduct (DBP)	80 ug/L	0.7 – 1.4	9/2004 – 2/2006
Dibromochloromethane - DBP	80 ug/L	2.3	9/2004
Bromodichloromethane - DBP	80 ug/L	1.0	9/2004