



TETRA TECH

engineers, hydrogeologists, surveyors, & management consultants

FIELD BORING LOG

1 of 10

DEPTH (FT)	SAMPLE			BLOWS PER 6"	N-VALUE	BORING LOG	MATERIAL DESCRIPTION CLASSIFICATION	WELL TPW-A1	REMARKS	PROJECT	
	NO. TYPE	SYMBOL	% REC.							200-08466-08014	NAME:
600							LIMESTONE, Pale Yellow (2.5 Y 8/2), Grainstone to Packstone, moderately to poorly indurated, fossiliferous		Echinoderm Oligopyus Pholani & Lepidocyclus ocalana (very minor)	CLIENT: TWA	LOCATION: Site A
610							LIMESTONE, Pale Yellow (2.5 Y 8/2), Grainstone to Packstone, moderately to poorly indurated, fossiliferous		Dictyoconus & Lepidocyclus ocalana (very minor)	BORING	
620							LIMESTONE, Pale Yellow (2.5 Y 8/2), Grainstone to Packstone, moderately to poorly indurated, fossiliferous		Echinoderm Oligopyus Pholani & Dictyoconus (very minor)	GR. ELEV: ~70' NGVD	DIA-TYPE: 12.25"
630							DOLOSTONE (95%) / Limestone (5%), Light Yellowish Brown (2.5 Y 6/3), Grainstone to Boundstone, moderate to well indurated, very finely crystalline "sucrosic"			DEPTH: 2360'	DATE STARTED: 09/08/09
640							LIMESTONE, Very Minor Dolostone and Clay, Pale Yellow (2.5 Y 8/2), Grainstone to Packstone, moderate to poorly indurated, fossiliferous			DATE ENDED: 01/07/10	GROUNDWATER
650							DOLOSTONE (90%) / Limestone (10%), Light Brownish Gray (2.5 Y 6/2), Grainstone to Boundstone, moderate to well indurated, Aphnocrystalline			TIME:	DRILLING
660							BW Note: Under microscope Dol. had nodules of ?			REMARKS:	PIEZ/WELL

200-08466-08014	NAME:	AWS Wellfield Exp. Test Wells
CLIENT: TWA	LOCATION:	Site A
BORING		
GR. ELEV:	~70' NGVD	
DIA-TYPE:	12.25"	
DEPTH:	2360'	
DATE STARTED:	09/08/09	
DATE ENDED:	01/07/10	
GROUNDWATER		
DEPTH:		
TIME:		
DATE:		
REMARKS:	DRILLING	
RIG TYPE:		
CREW:	FDD	
SUPERVISOR:	Adrian	
PIEZ/WELL		
CASING DIAM:		
CASING TYPE:		
CASING DEPTH:		
SCREEN DEPTH:		
SCREEN LENGTH:		
FILTER PACK:		
RISER HEIGHT ALS:		
T.O.C. ELEV:		
REMARKS		
Munsell Color Chart Used		



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FIELD BORING LOG

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DEPTH (FT)	SAMPLE			BLOWS PER 6"	N-VALUE	BORING LOG	MATERIAL DESCRIPTION CLASSIFICATION	WELL TPW-A1	REMARKS	PROJECT	
	NO. TYPE	SYMBOL	% REC.							NAME:	200-08466-08014
660							LIMESTONE, Pale Yellow (2.5 Y 8/2), Grainstone to Packstone, moderately to poorly indurated, fossiliferous		Dictyoconus	CLIENT: TWA	LOCATION: Site A
670										BORING	
670							LIMESTONE, Pale Yellow (2.5 Y 8/2), Grainstone to Packstone, moderately to poorly indurated, fossiliferous		Dictyoconus	GR. ELEV: ~70' NGVD	DIA-TYPE: 12.25"
680										DEPTH: 2360'	DATE STARTED: 09/08/09
680							DOLOSTONE (80%) / Limestone (20%), Very Minor Clay, Light Brownish Gray (2.5 Y 6/2), Grainstone to Boundstone, moderate to well indurated, very finely crystalline "sucrosic"			DATE ENDED: 01/07/10	GROUNDWATER
690										DEPTH:	TIME:
690							DOLOSTONE (98%) / Limestone (2%), Light Brownish Gray (2.5 Y 6/2), Boundstone, well indurated, very finely crystalline "sucrosic", slightly porous		Dolomite replacement of Lepidi? (very minor)	DATE:	REMARKS:
700										DRILLING	
700							DOLOSTONE (80%) / Limestone (20%), Light Brownish Gray (2.5 Y 6/2), Grainstone to Boundstone, moderate to well indurated, very finely crystalline "sucrosic"		Dictyoconus (very minor)	RIG TYPE:	CREW: FDD
710										SUPERVISOR: Adrian	PIEZ/WELL
710							DOLOSTONE, Very Minor Limestone, Light Yellowish Brown (2.5 Y 6/3), Grainstone to Boundstone, moderate to well indurated, very finely crystalline "sucrosic"		Last 30' of drilling the Kelly was bouncing around and getting large cuttings, FDD replaces BIT	CASING DIAM:	CASING TYPE:
720										CASING DEPTH:	SCREEN DEPTH:
										SCREEN LENGTH:	FILTER PACK:
										RISER HEIGHT ALS:	T.O.C. ELEV:
											REMARKS
											Munsell Color Chart Used



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DEPTH (FT)	SAMPLE			BLOWS PER 6"	N-VALUE	BORING LOG	MATERIAL DESCRIPTION CLASSIFICATION	WELL TPW-A1	REMARKS	PROJECT	
	NO. TYPE	SYMBOL	% REC.							200-08466-08014	NAME:
720							DOLOSTONE, Very Minor Limestone and Clay, Light Yellowish Brown (2.5 Y 6/3), Grainstone to Boundstone, moderate to well indurated, very finely crystalline "sucrosic"			AWS Wellfield Exp. Test Wells	CLIENT: TWA
730										LOCATION: Site A	BORING
730							LIMESTONE, Light Gray to Light Yellowish Brown (2.5Y 7/2 to 6/3), Grainstone, moderate to well indurated, high to medium porosity			GR. ELEV: ~70' NGVD	DIA-TYPE: 12.25"
740										DEPTH: 2360'	DATE STARTED: 09/08/09
740							LIMESTONE, Very Minor Dolostone (fine crystalline "sucrosic"), Light Yellowish Brown (2.5Y 6/4), Grainstone, moderate to well indurated, high to medium porosity			DATE ENDED: 01/07/10	GROUNDWATER
750										DEPTH:	TIME:
750							LIMESTONE / DOLOSTONE, Light Yellowish Brown to Olive Brown (2.5Y 6/4 to 4/3), Grainstone / very fine crystalline ("honeycomb"), moderate to well indurated, high porosity			DATE:	REMARKS:
760										DRILLING	
760										RIG TYPE:	CREW: FDD
770							LIMESTONE, Minor Dolostone (very fine to fine crystalline "sucrosic" & "honeycomb"), Light Gray to Olive Brown (2.5Y 7/2 to 4/3), Grainstone, moderate to well indurated, high to medium porosity			SUPERVISOR: Adrian	PIEZ/WELL
770										CASING DIAM:	CASING TYPE:
780							LIMESTONE / Dolostone, Light Gray to Olive Brown (2.5Y 7/2 to 4/3), Grainstone / very fine to fine crystalline("sucrosic" & "honeycomb"), moderate to well indurated, high to medium porosity, minor dark layering			CASING DEPTH:	SCREEN DEPTH:
										SCREEN LENGTH:	FILTER PACK:
										RISER HEIGHT ALS:	T.O.C. ELEV:
										REMARKS	Munsell Color Chart Used



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DEPTH (FT)	SAMPLE			BLOWS PER 6"	N-VALUE	BORING LOG	MATERIAL DESCRIPTION CLASSIFICATION	WELL TPW-A1	REMARKS	PROJECT	
	NO	TYPE	SYMBOL							% REC.	NAME:
780							DOLOSTONE / LIMESTONE, Dark Olive Brown to Light Brownish Gray (2.5Y 3/3 to 6/2), Grainstone / fine crystalline ("sucrosic"), moderate to well indurated, medium to low porosity			AWS Wellfield Exp. Test Wells	CLIENT: TWA
790							DOLOSTONE, Pale Brown (10 YR 6/3), 2.5 Y 8/2), crystalline matrix with low porosity, < 1 cm to 3 cm fragments		Very hard and slow drilling ~10' per hour	LOCATION: Site A	GR. ELEV: ~70' NGVD
800							DOLOSTONE (85%) / Limestone (15%), Yellowish Brown to Pale Yellow (10 YR 5/4 to 2.5 Y 8/2), crystalline matrix with low porosity, < 1 cm to 3 cm fragments		Very hard and slow drilling ~10' per hour	DEPTH: 2360'	DATE STARTED: 09/08/09
810							DOLOSTONE (90%) / Limestone (10%), Yellowish Brown to Pale Yellow (10 YR 5/3 to 2.5 Y 8/2), crystalline matrix with low porosity, < 1 cm to 3 cm fragments		Very hard and slow drilling ~10' per hour	DATE ENDED: 01/07/10	GROUNDWATER
820							DOLOSTONE (90%) / Limestone (10%), Yellowish Brown to Pale Yellow (10 YR 5/3 to 2.5 Y 8/2), crystalline matrix with low porosity, < 1 cm to 3 cm fragments		Very hard and slow drilling ~10' per hour	DEPTH:	TIME:
830							DOLOSTONE (90%) / Limestone (10%), Yellowish Brown to Pale Yellow (10 YR 5/3 to 2.5 Y 8/2), crystalline matrix with low porosity, < 1 cm to 3 cm fragments		Very hard and slow drilling ~10' per hour	DATE:	REMARKS:
830							DOLOSTONE (75%) / Limestone (25%), Yellowish Brown to Pale Yellow (10 YR 5/3 to 2.5 Y 8/2), crystalline matrix with low porosity		Very hard and slow drilling ~10' per hour - Dictyonus	DRILLING	CREW: FDD
840										PIEZ/WELL	SUPERVISOR: Adrian
										CASING DIAM:	CASING DEPTH:
										CASING TYPE:	SCREEN DEPTH:
											SCREEN LENGTH:
											FILTER PACK:
											RISER HEIGHT ALS:
											T.O.C. ELEV:
											REMARKS
											Munsell Color Chart Used



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DEPTH (FT)	SAMPLE			BLOWS PER 6"	N-VALUE	BORING LOG	MATERIAL DESCRIPTION CLASSIFICATION	WELL TPW-A1	REMARKS	PROJECT 200-08466-08014	
	NO. TYPE	SYMBOL	% REC.							NAME:	CLIENT:
840							DOLOSTONE (75%) / Limestone (25%), Yellowish Brown to Pale Yellow (10 YR 5/3 to 2.5 Y 8/2), crystalline matrix with low porosity		Very hard and slow drilling ~10' per hour - Echinoderm Oligopyus Pholani & Shark Tooth	AWS Wellfield Exp. Test Wells	TWA
850										LOCATION: Site A	
850							DOLOSTONE (80%) / Limestone (20%), Light Yellowish Brown to Pale Yellow (10 YR 6/4 2.5 Y 8/2), crystalline matrix with low porosity, < 1 cm to 3 cm fragments		Very hard and slow drilling ~10' per hour - Echinoderm Oligopyus Pholani & Shell Casts	BORING GR. ELEV: ~70' NGVD	
860										DIA-TYPE: 12.25"	
860							DOLOSTONE (70%) / Limestone (30%), Light Yellowish Brown to Pale Yellow (10 YR 6/4 2.5 Y 8/2), crystalline matrix with low porosity, < 1 cm to 3 cm fragments		Very hard and slow drilling ~10' per hour - Echinoderm Oligopyus Pholani & Shell Casts	DEPTH: 2360'	
870										DATE STARTED: 09/08/09	
870							DOLOSTONE (80%) / Limestone (20%), Yellowish Brown to Pale Yellow (10 YR 5/3 to 2.5 Y 8/2), crystalline matrix with low porosity, < 1 cm to 3 cm fragments		Last 8' of drilling not as slow - Echinoderm Oligopyus Pholani	DATE ENDED: 01/07/10	
880										GROUNDWATER DEPTH:	
880							DOLOSTONE (85%) / Limestone (15%), Yellowish Brown to Pale Yellow (10 YR 5/4 to 2.5 Y 8/2), crystalline matrix with low porosity, < 1 cm to 3 cm fragments		Fossiliferous - Ooids?	TIME:	
890										DATE:	
890							DOLOSTONE (85%) / Limestone (15%), Yellowish Brown to Pale Yellow (10 YR 5/4 to 2.5 Y 8/2), crystalline matrix with low porosity, < 1 cm to 3 cm fragments		Echinoderm Oligopyus Pholani & Lepidocyclina ocalana	REMARKS:	
900										DRILLING RIG TYPE:	
										CREW: FDD	
										SUPERVISOR: Adrian	
										PIEZ/WELL CASING DIAM:	
										CASING TYPE:	
										CASING DEPTH:	
										SCREEN DEPTH:	
										SCREEN LENGTH:	
										FILTER PACK:	
										RISER HEIGHT ALS:	
										T.O.C. ELEV:	
										REMARKS Munsell Color Chart Used	



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DEPTH (FT)	SAMPLE			BLOWS PER 6"	N-VALUE	BORING LOG	MATERIAL DESCRIPTION CLASSIFICATION	WELL TPW-A1	REMARKS	PROJECT	
	NO. TYPE	SYMBOL	% REC.							200-08466-08014	NAME:
900							DOLOSTONE (85%) / Limestone (15%), Pale Brown to Pale Yellow (10 YR 6/3 to 2.5 Y 8/2), very minor clay and quartz sand, crystalline matrix with low porosity, well indurated		Echinoderm Oligopyrus Pholani & Dictyoncus (very minor)	CLIENT: TWA	LOCATION: Site A
910							DOLOSTONE (90%) / Limestone (10%), Pale Brown to Pale Yellow (10 YR 6/3 to 2.5 Y 8/2), crystalline matrix with very low porosity, well indurated		Dictyoncus (very minor)	GR. ELEV: ~70' NGVD	DIA-TYPE: 12.25"
920							DOLOSTONE (90%) / Limestone (10%), Pale Brown to Pale Yellow (10 YR 6/3 to 2.5 Y 8/2), crystalline matrix with very low porosity, well indurated		Dictyoncus, Lepidocyclus ocalana & Cirrobulimina Cushmani?	DEPTH: 2360'	DATE STARTED: 09/08/09
930							DOLOSTONE (90%) / Limestone (10%), Pale Brown to Pale Yellow (10 YR 6/3 to 2.5 Y 8/2), crystalline matrix with very low porosity, well indurated		Dictyoncus & Lepidocyclus ocalana (minor)	DATE ENDED: 01/07/10	GROUNDWATER
940							DOLOSTONE (85%) / Limestone (15%), Pale Brown to Pale Yellow (10 YR 6/3 to 2.5 Y 8/2), crystalline matrix with very low porosity, moderately indurated		Dictyoncus	DEPTH:	TIME:
950							DOLOSTONE (85%) / Limestone (15%), Pale Brown to Pale Yellow (10 YR 6/3 to 2.5 Y 8/2), crystalline matrix with very low porosity, moderately indurated		Dictyoncus & Coskinolina elongata	DATE:	REMARKS:
960							DOLOSTONE (85%) / Limestone (15%), Pale Brown to Pale Yellow (10 YR 6/3 to 2.5 Y 8/2), crystalline matrix with very low porosity, moderately indurated		Dictyoncus & Coskinolina elongata	REMARKS:	DRILLING

PROJECT	200-08466-08014
NAME:	AWS Wellfield Exp. Test Wells
CLIENT:	TWA
LOCATION:	Site A
BORING	
GR. ELEV:	~70' NGVD
DIA-TYPE:	12.25"
DEPTH:	2360'
DATE STARTED:	09/08/09
DATE ENDED:	01/07/10
GROUNDWATER	
DEPTH:	
TIME:	
DATE:	
REMARKS:	
DRILLING	
RIG TYPE:	
CREW:	FDD
SUPERVISOR:	Adrian
PIEZ/WELL	
CASING DIAM:	
CASING TYPE:	
CASING DEPTH:	
SCREEN DEPTH:	
SCREEN LENGTH:	
FILTER PACK:	
RISER HEIGHT ALS:	
T.O.C. ELEV:	
REMARKS	
Munsell Color Chart Used	



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DEPTH (FT)	SAMPLE			BLOWS PER 6"	N-VALUE	BORING LOG	MATERIAL DESCRIPTION CLASSIFICATION	WELL TPW-A1	REMARKS	PROJECT	
	NO. TYPE	SYMBOL	% REC.							200-08466-08014	NAME:
1020							DOLOSTONE, Pale Brown (10 YR 6/3), very minor Limestone, crystalline matrix, low porosity, moderately indurated		Dictyconus (very minor)	AWS Wellfield Exp. Test Wells	CLIENT: TWA
1030							DOLOSTONE, Pale Brown (10 YR 6/3), very minor Limestone, crystalline matrix, low porosity, moderately indurated		Dictyconus (very minor)	LOCATION: Site A	BORING
1030							DOLOSTONE, Pale Brown (10 YR 6/3), very minor Limestone, crystalline matrix, low porosity, moderately indurated		Dictyconus (very minor)	GR. ELEV: ~70' NGVD	DEPTH: 2360'
1040							DOLOSTONE, Pale Brown (10 YR 6/3), very minor Limestone, crystalline matrix, low porosity, well indurated		Drill pipe bouncing, hard drilling	DATE STARTED: 09/08/09	DATE ENDED: 01/07/10
1040							DOLOSTONE, Pale Brown (10 YR 6/3), very minor Limestone, crystalline matrix, low porosity, well indurated		Drill pipe bouncing, hard drilling - Echinoderm Oligopyus Pholani & Lepidocyclus ocalana (minor)	GROUNDWATER	TIME:
1050							DOLOSTONE, Pale Brown (10 YR 6/3), Very minor Limestone, crystalline matrix, low porosity, well indurated		Drill pipe bouncing, hard drilling - Echinoderm Oligopyus Pholani & Lepidocyclus ocalana (minor)	REMARKS:	DRILLING
1060							DOLOSTONE, Pale Brown (10 YR 6/3), very minor Limestone, crystalline matrix, low porosity, well indurated		Drill pipe bouncing, hard drilling - Echinoderm Oligopyus Pholani & Lepidocyclus ocalana (minor)	CREW: FDD	SUPERVISOR: Adrian
1060							DOLOSTONE, Pale Brown (10 YR 6/3), very minor Limestone, crystalline matrix, low porosity, well indurated		Drill pipe bouncing, hard drilling - Echinoderm Oligopyus Pholani & Lepidocyclus ocalana (minor)	PIEZ/WELL	CASING DIAM:
1070							DOLOSTONE, Pale Brown (10 YR 6/3), very minor Limestone, crystalline matrix, low porosity, well indurated		Drill pipe bouncing, hard drilling - Echinoderm Oligopyus Pholani & Lepidocyclus ocalana (minor)	CASING TYPE:	CASING DEPTH:
1070							DOLOSTONE, Pale Brown (10 YR 6/3), very minor Limestone, crystalline matrix, low porosity, moderately indurated		Echinoderm Oligopyus Pholani & Lepidocyclus ocalana (very minor)	SCREEN DEPTH:	SCREEN LENGTH:
1080							DOLOSTONE, Pale Brown (10 YR 6/3), very minor Limestone, crystalline matrix, low porosity, moderately indurated		Echinoderm Oligopyus Pholani & Lepidocyclus ocalana (very minor)	FILTER PACK:	RISER HEIGHT ALS:
										T.O.C. ELEV:	REMARKS
											Munsell Color Chart Used



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DEPTH (FT)	SAMPLE			BLOWS PER 6"	N-VALUE	BORING LOG	MATERIAL DESCRIPTION CLASSIFICATION	WELL TPW-A1	REMARKS	PROJECT	
	NO. TYPE	SYMBOL	% REC.							200-08466-08014	NAME:
1080							LIMESTONE, Pale Brown (10 YR 6/3), very minor Dolostone < 1 cm, moderate porosity (honey comb), moderately indurated		Lepidocyclus ocalana (very minor)	AWS Wellfield Exp. Test Wells	CLIENT: TWA
1090							LIMESTONE (90%) / Dolostone (10%), Very Pale Brown (10 YR 8/2), slightly chalky, Dolostone < 1 cm & Crystalline, moderately indurated		Dictyconus, Lepidocyclus ocalana & Coskinolina elongata	LOCATION: Site A	GR. ELEV: ~70' NGVD
1100							LIMESTONE, Pale Brown (10 YR 6/3), moderate porosity (honey comb), moderately indurated			DEPTH: 2360'	DATE STARTED: 09/08/09
1110							DOLOSTONE, Very Pale Brown (10 YR 7/3), Very minor Limestone, crystalline matrix with very low porosity, moderately indurated			DATE ENDED: 01/07/10	GROUNDWATER
1120							DOLOSTONE, Very Pale Brown (10 YR 7/3), Very minor Limestone, crystalline matrix with very low porosity, moderately to well indurated			DEPTH:	TIME:
1130							LIMESTONE, Very Pale Brown (10 YR 7/3), Minor Dolostone, abundant small vugs "honey comb", moderately indurated			DATE:	REMARKS:
1140										DRILLING	
										CREW: FDD	
										SUPERVISOR: Adrian	
										PIEZ/WELL	
										CASING DIAM:	
										CASING TYPE:	
										CASING DEPTH:	
										SCREEN DEPTH:	
										SCREEN LENGTH:	
										FILTER PACK:	
										RISER HEIGHT ALS:	
										T.O.C. ELEV:	
										REMARKS	
										Munsell Color Chart Used	



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DEPTH (FT)	SAMPLE			BLOWS PER 6'	N-VALUE	BORING LOG	MATERIAL DESCRIPTION CLASSIFICATION	WELL TPW-A1	REMARKS	PROJECT	
	NO/TYPE	SYMBOL	% REC.							200-08466-08014	NAME:
1250							LIMESTONE, Pale Yellow (2.5 Y 8/3), Very Minor Dolomite, Very Low Porosity (minor "honeycomb"), moderately indurated			AWS Wellfield Exp. Test Wells	CLIENT: TWA
1260										LOCATION: Site A	BORING
1260							LIMESTONE, Pale Yellow (2.5 Y 8/3), Very Minor Dolomite, Very Low Porosity (minor "honeycomb"), Very Minor Dark Layering, moderately indurated			GR. ELEV: ~70' NGVD	DEPTH: 2360'
1270										DATE STARTED: 11/23/09	DATE ENDED: 01/07/10
1270							LIMESTONE, Pale Yellow (2.5 Y 7/3), minor dolomite, moderate to low porosity (honeycomb), very minor dark layering, moderately indurated			GROUNDWATER	DEPTH:
1280										TIME:	DATE:
1280							LIMESTONE, Pale Yellow (2.5 Y 7/3) to Gray (2.5 Y 5/1), minor Dolomite, low to moderate porosity (honeycomb), minor dark, layering, moderately indurated			REMARKS:	DRILLING
1290										CREW: FDD	RIG TYPE:
1290							DOLOSTONE, Pale Brown (10 YR 6/3) to Pale Yellow (2.5 Y 7/3), Minor Limestone, Low Porosity, moderate to well indurated			SUPERVISOR: Adrian	PIEZ/WELL
1300										CASING DIAM:	CASING TYPE:
1300							DOLOSTONE, Pale Brown (10 YR 6/3) to Pale Yellow (2.5 Y 7/3), minor Limestone, low to moderate porosity (honeycomb), moderate to well indurated			CASING DEPTH:	SCREEN DEPTH:
1310										SCREEN LENGTH:	FILTER PACK:
										RISER HEIGHT ALS:	T.O.C. ELEV:
										REMARKS	Munsell Color Chart Used



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DEPTH (FT)	SAMPLE			BLOWS PER 6'	N-VALUE	BORING LOG	MATERIAL DESCRIPTION CLASSIFICATION	WELL TPW-A1	REMARKS	PROJECT	
	NO/TYPE	SYMBOL	% REC.							200-08466-08014	NAME:
1310							DOLOSTONE, Light Yellowish brown (10 YR 6/4), moderate to highly porous (honeycomb), moderately indurated			AWS Wellfield Exp. Test Wells	CLIENT: TWA
1320										LOCATION: Site A	BORING
1320							DOLOSTONE, Very Pale Brown (10 YR 7/3), moderate to low porosity (minor vugs and honeycomb), moderate to well indurated			GR. ELEV: ~70' NGVD	DEPTH: 2360'
1330										DATE STARTED: 11/23/09	DATE ENDED: 01/07/10
1330							LIMESTONE, Light Gray (10 YR 7/2), Packstone, low porosity, moderate to well indurated			GROUNDWATER	
1340										DEPTH:	TIME:
1340							LIMESTONE (80%), DOLOSTONE (20%), Very Pale Brown (10 YR 7/3), low to moderate porosity, moderate to well indurated, minor dark layering			DATE:	REMARKS:
1350										DRILLING	
1350										CREW: FDD	RIG TYPE:
1360							LIMESTONE, Very Pale Brown (10 YR 7/3), low to high porosity (honeycomb), well indurated		Kelley bouncing (hard drilling)	SUPERVISOR: Adrian	PIEZ/WELL
1360										CASING DIAM:	CASING DEPTH:
1370							LIMESTONE, Very Pale Brown (10 YR 7/3), low to moderate porosity (honeycomb), well indurated		Kelley bouncing (hard drilling)	CASING TYPE:	SCREEN DEPTH:
										SCREEN LENGTH:	FILTER PACK:
										RISER HEIGHT ALS:	T.O.C. ELEV:
										REMARKS	
										Munsell Color Chart Used	



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DEPTH (FT)	SAMPLE			BLOWS PER 6"	N-VALUE	BORING LOG	MATERIAL DESCRIPTION CLASSIFICATION	WELL TPW-A1	REMARKS	PROJECT	
	NO/TYPE	SYMBOL	% REC.							200-08466-08014	NAME:
1370							DOLOSTONE (60%) to LIMESTONE (40%), Very Pale Brown (10 YR 7/3) to Pale Yellow (2.5 Y 8/3), low to moderate porosity, well to moderately indurated, dark layering,			CLIENT: TWA	AWS Wellfield Exp. Test Wells
1380										LOCATION: Site A	BORING
1380							DOLOSTONE, Pale Brown (10 YR 6/3), moderate porosity, moderate to well indurated, very minor dark layering, minor LIMESTONE			GR. ELEV: ~70' NGVD	DEPTH: 2360'
1390										DATE STARTED: 11/23/09	DIA-TYPE: 12.25"
1390							DOLOSTONE, Pale Brown (10 YR 6/3) to Very Pale Brown (10 YR 7/3), low porosity, well indurated			DATE ENDED: 01/07/10	GROUNDWATER
1400										DEPTH:	TIME:
1400							LIMESTONE (90%) to DOLOSTONE (10%), Gray to Light Gray (10 YR 6/1 to 7/1), low porosity, well indurated			DATE:	REMARKS:
1410										DRILLING	CREW: FDD
1410							DOLOSTONE, Pale Brown (10 YR 6/3) to Very Pale Brown (10 YR 7/3), moderate porosity, well indurated			SUPERVISOR: Adrian	PIEZ/WELL
1420										CASING DIAM:	CASING TYPE:
1420							DOLOSTONE, Pale Brown (10 YR 6/3), moderate to low porosity, well indurated			CASING DEPTH:	SCREEN DEPTH:
1430										SCREEN LENGTH:	FILTER PACK:
										RISER HEIGHT ALS:	T.O.C. ELEV:
										REMARKS	Munsell Color Chart Used



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FIELD BORING LOG

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DEPTH (FT)	SAMPLE			BLOWS PER 6'	N-VALUE	BORING LOG	MATERIAL DESCRIPTION CLASSIFICATION	WELL TPW-A1	REMARKS	PROJECT	
	NO/TYPE	SYMBOL	% REC.							200-08466-08014	NAME:
1430							DOLOSTONE, Dark Grayish Brown (10 YR 4/2), moderate to high porosity, sucrosic texture, well indurated			AWS Wellfield Exp. Test Wells	CLIENT: TWA
1440										LOCATION: Site A	BORING
1440							DOLOSTONE, Dark Grayish Brown (10 YR 4/2), moderate to high porosity (minor vuggy), sucrosic texture, well indurated			GR. ELEV: ~70' NGVD	DEPTH: 2360'
1450										DATE STARTED: 11/23/09	DATE ENDED: 01/07/10
1450							DOLOSTONE, Brown (10 YR 5/3), moderate to high porosity (minor vuggy), sucrosic texture, well indurated			GROUNDWATER	DEPTH:
1460										TIME:	DATE:
1460							DOLOSTONE, Brown (10 YR 5/3), low to moderate porosity, sucrosic texture, well indurated, dark to gray layering,			REMARKS:	DRILLING
1470										RIG TYPE:	CREW: FDD
1470							DOLOSTONE, Yellowish-Brown (10 YR 5/4), moderate porosity, sucrosic texture, moderate to well indurated		Small to Very Small Dolostone Fragments	SUPERVISOR: Adrian	PIEZ/WELL
1480										CASING DIAM:	CASING TYPE:
1480							DOLOSTONE, Yellowish-Brown (10 YR 5/4), moderate to high porosity, sucrosic texture, moderate to well indurated, minor dark layering,		Small to Very Small Dolostone Fragments	CASING DEPTH:	SCREEN DEPTH:
1490										SCREEN LENGTH:	FILTER PACK:
										RISER HEIGHT ALS:	T.O.C. ELEV:
										REMARKS	Munsell Color Chart Used



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FIELD BORING LOG

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DEPTH (FT)	SAMPLE			BLOWS PER 6'	N-VALUE	BORING LOG	MATERIAL DESCRIPTION CLASSIFICATION	WELL TPW-A1	REMARKS	PROJECT	
	NO/TYPE	SYMBOL	% REC.							200-08466-08014	NAME:
1490							DOLOSTONE, Yellowish-Brown to Light Yellowish (10 YR 5/4 to 6/4), moderate to low porosity, sucrosic texture, well indurated		Small to Very Small Dolostone Fragments	AWS Wellfield Exp. Test Wells	CLIENT: TWA
1500										LOCATION: Site A	BORING
1500							DOLOSTONE, Dark Grayish Brown to Very Pale Brown (10 YR 4/2 to 7/4), fine to coarse grain sand, with well indurated Dolostone), low to high porosity, well to poorly indurated		1500' to 1508' very soft material	GR. ELEV: ~70' NGVD	DEPTH: 2360'
1510										DATE STARTED: 11/23/09	DATE ENDED: 01/07/10
1510							DOLOSTONE, Yellowish Brown (10 YR 5/4), low to moderate porosity, sucrosic texture, moderate to well indurated			GROUNDWATER	DEPTH:
1520										TIME:	DATE:
1520							DOLOSTONE, Yellowish Brown (10 YR 5/4), Grainstone (grainy to sandy matrix with well indurated Dolostone), low to moderate porosity, sucrosic texture, well to poorly indurated			REMARKS:	DRILLING
1530										RIG TYPE:	CREW: FDD
1530							DOLOSTONE, Brown (10 YR 5/3), low to moderate porosity, sucrosic texture, moderat to well indurated			SUPERVISOR: Adrian	PIEZ/WELL
1540										CASING DIAM:	CASING TYPE:
1540							DOLOSTONE, Brown (10 YR 5/3), moderate porosity, sucrosic texture, moderate to well indurated			CASING DEPTH:	SCREEN DEPTH:
1550										SCREEN LENGTH:	FILTER PACK:
										RISER HEIGHT ALS:	T.O.C. ELEV:
										REMARKS	Munsell Color Chart Used



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FIELD BORING LOG

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DEPTH (FT)	SAMPLE			BLOWS PER 6'	N-VALUE	BORING LOG	MATERIAL DESCRIPTION CLASSIFICATION	WELL TPW-A1	REMARKS	PROJECT	
	NO/TYPE	SYMBOL	% REC.							200-08466-08014	NAME:
1550							DOLOSTONE, Brown (10 YR 4/3), low to moderate porosity, sucrosic texture, moderate to well indurated			AWS Wellfield Exp. Test Wells	CLIENT: TWA
1560							DOLOSTONE, Brown (10 YR 4/3), to Grainstone (grainy to sandy matrix with well indurated Dolostone, minor ~2 cm pieces), low to moderate porosity, sucrosic texture, moderate to well indurated				LOCATION: Site A
1570							DOLOSTONE, Brown (10 YR 4/3), low porosity, sucrosic texture, well indurated, minor sand				BORING GR. ELEV: ~70' NGVD DIA-TYPE: 12.25"
1580							DOLOSTONE, Brown (10 YR 4/3), to Grainstone (grainy to sandy matrix with well indurated Dolostone, minor ~2 cm pieces), low porosity, sucrosic texture, moderate to well indurated				DEPTH: 2360' DATE STARTED: 11/23/09 DATE ENDED: 01/07/10
1590							DOLOSTONE, Brown (10 YR 5/3), 0.5 - 1.0 cm fragments, to Grainstone, well indurated, low porosity, minor sand, sucrosic texture, CHERT, White to Black (10YR 8/1 to 2/1), 1 - 2 cm fragments		very minor dark fragments >0.5cm, minor dark layering		GROUNDWATER DEPTH:
1600							DOLOSTONE, Very Pale Brown to Brown (10YR 7/3 to 4/3), sandy, fine grained, LIMESTONE, to Grainstone, minor porosity, crystalline, up to 4 cm fragments, fossiliferous				TIME: DATE: REMARKS:
1610											DRILLING RIG TYPE: CREW: FDD SUPERVISOR: Adrian
											PIEZ/WELL CASING DIAM: CASING TYPE: CASING DEPTH: SCREEN DEPTH: SCREEN LENGTH: FILTER PACK: RISER HEIGHT ALS: T.O.C. ELEV:
											REMARKS Munsell Color Chart Used



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FIELD BORING LOG

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DEPTH (FT)	SAMPLE			BLOWS PER 6'	N-VALUE	BORING LOG	MATERIAL DESCRIPTION CLASSIFICATION	WELL TPW-A1	REMARKS	PROJECT	
	NO/TYPE	SYMBOL	% REC.							200-08466-08014	NAME:
1610							LIMESTONE/DOLOMITE, Very Pale Brown (10YR 7/3), sandy, fine grained, LIMESTONE, grainstone, moderate porosity (fenestral), crystalline, up to 4 cm fragments, fossiliferous (abundant echinoids)			CLIENT: TWA	AWS Wellfield Exp. Test Wells
1620							DOLOSTONE, Pale Brown (10YR 6/3), 0.25 - 0.5 cm fragments with fine grained sand, moderate to well indurated, crystalline, to grainstone, moderate porosity		Hard drilling at 1627'	LOCATION: Site A	BORING
1630							DOLOSTONE, Brown (10YR 4/3), 0.25 - 2.0 cm fragments with fine grained sand, moderate to well indurated, crystalline, low to moderate porosity, dark layering			GR. ELEV: ~70' NGVD	DATE ENDED: 01/07/10
1640							DOLOSTONE, Brown (10YR 4/3), 0.25 - 2.0 cm fragments with fine grained sand, moderate to well indurated, crystalline, low porosity, dark layering			DATE STARTED: 11/23/09	GROUNDWATER
1650							DOLOSTONE, Light Brownish Gray to Grayish Brown (10YR 4/3), moderate to well indurated, crystalline texture, low porosity, minor dark layering			DEPTH:	DRILLING
1660							DOLOSTONE, Pale Brown (10YR 6/3), 0.25 - 0.5 cm fragments, fine grained sand, moderate to well indurated, crystalline texture, low porosity		small dolostone fragments (<1 to 0.25 cm)	TIME:	CREW: FDD
1670										DATE:	SUPERVISOR: Adrian

PROJECT	
200-08466-08014	
NAME:	
AWS Wellfield Exp. Test Wells	
CLIENT:	TWA
LOCATION:	Site A
BORING	
GR. ELEV:	~70' NGVD
DIA-TYPE:	12.25"
DEPTH:	2360'
DATE STARTED:	11/23/09
DATE ENDED:	01/07/10
GROUNDWATER	
DEPTH:	
TIME:	
DATE:	
REMARKS:	
DRILLING	
RIG TYPE:	
CREW:	FDD
SUPERVISOR:	Adrian
PIEZ/WELL	
CASING DIAM:	
CASING TYPE:	
CASING DEPTH:	
SCREEN DEPTH:	
SCREEN LENGTH:	
FILTER PACK:	
RISER HEIGHT ALS:	
T.O.C. ELEV:	

REMARKS
Munsell Color Chart Used



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FIELD BORING LOG

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DEPTH (FT)	SAMPLE			BLOWS PER 6'	N-VALUE	BORING LOG	MATERIAL DESCRIPTION CLASSIFICATION	WELL TPW-A1	REMARKS	PROJECT	
	NO/TYPE	SYMBOL	% REC.							200-08466-08014	NAME:
1670							DOLOSTONE, Light Brownish Gray (10 YR 4/2), low to moderate porosity, crystalline texture, minor sand (fine grained), 0.25 - 0.50 cm fragments, moderately indurated, minor dark layering			AWS Wellfield Exp. Test Wells	CLIENT: TWA
1680							DOLOSTONE, Light Brownish Gray (10 YR 4/2), 0.25 - 0.5 cm fragments, fine grained sand, moderately to well indurated, crystalline texture, low porosity		small dolostone fragments (<1 to 0.25 cm), increase in sand	~70' NGVD	LOCATION: Site A
1680							DOLOSTONE, Light Brownish Gray to Grayish Brown (10 YR 6/2 to 5/2), low porosity, crystalline texture, very minor sand (fine grained), 0.25 - 0.50 cm fragments, moderately indurated, dark layering			2360'	DATE STARTED: 11/23/09
1690							DOLOSTONE, Light Brownish Gray (10 YR 6/2), low porosity, crystalline texture, sand (fine grained), 0.25 - 0.50 cm fragments, moderately indurated, dark layering			12.25"	DATE ENDED: 01/07/10
1700							DOLOSTONE, Light Brownish Gray (10 YR 6/2), porous, dark layering, crystalline texture, sand (fine grained), 0.25 - 0.50 cm fragments, moderately indurated				GROUNDWATER
1710							DOLOSTONE, Light Brownish Gray (10 YR 6/2), low porosity, crystalline texture, sandy (fine to coarse grained), 0.5 - 2.0 cm fragments, moderately to well indurated, dark layering				DEPTH:
1720											TIME:
1730											DATE:
											REMARKS:
											DRILLING
											CREW: FDD
											SUPERVISOR: Adrian
											PIEZ/WELL
											CASING DIAM:
											CASING TYPE:
											CASING DEPTH:
											SCREEN DEPTH:
											SCREEN LENGTH:
											FILTER PACK:
											RISER HEIGHT ALS:
											T.O.C. ELEV:
											REMARKS
											Munsell Color Chart Used



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FIELD BORING LOG

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DEPTH (FT)	SAMPLE			BLOWS PER 6'	N-VALUE	BORING LOG	MATERIAL DESCRIPTION CLASSIFICATION	WELL TPW-A1	REMARKS	PROJECT	
	NO/TYPE	SYMBOL	% REC.							200-08466-08014	NAME:
1730							DOLOSTONE, Light Brownish Gray (10 YR 6/2), low porosity, dark layering, crystalline texture, sandy (fine to coarse grained), 0.5 - 1.0 cm fragments, moderate to well indurated			AWS Wellfield Exp. Test Wells	CLIENT: TWA
1740										LOCATION: Site A	BORING
1740							DOLOSTONE, Light Brownish Gray to Pale Brown (10 YR 6/2 to 6/3), low to moderate porosity, crystalline to sucrosic texture, sandy (fine to coarse grained), 0.5 - 1.0 cm fragments, moderate to well indurated, dark layering		small dolostone fragments (<1 to 0.25 cm), increase in sand	GR. ELEV: ~70' NGVD	DEPTH: 2360'
1750										DATE STARTED: 11/23/09	DATE ENDED: 01/07/10
1750							DOLOSTONE, Pale Brown to Brown (10 YR 6/3 to 5/3), moderate porosity, crystalline to sucrosic texture, well indurated			GROUNDWATER	DEPTH:
1760										TIME:	DATE:
1760							DOLOSTONE, Light Brownish Gray to Pale Brown (10 YR 6/2 to 6/3), porous, dark layering, crystalline (sucrosic texture), 0.25 - 2 cm fragments,			REMARKS:	DRILLING
1770										CREW: FDD	SUPERVISOR: Adrian
1770							DOLOSTONE, Light Brownish Gray to Grayish Brown (10 YR 6/2 to 5/2), moderately porous to porous, crystalline (sucrosic texture), minor dark layering, well indurated, 0.5 - 1.0 cm fragments			PIEZ/WELL	CASING DIAM:
1780										CASING TYPE:	CASING DEPTH:
1780							DOLOSTONE, Pale Brown to Brown (10 YR 6/3 to 5/3), very porous to moderately porous, crystalline, well indurated, minor dark layering			SCREEN DEPTH:	SCREEN LENGTH:
1790										FILTER PACK:	RISER HEIGHT ALS:
										T.O.C. ELEV:	REMARKS
											Munsell Color Chart Used



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FIELD BORING LOG

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DEPTH (FT)	SAMPLE			BLOWS PER 6'	N-VALUE	BORING LOG	MATERIAL DESCRIPTION CLASSIFICATION	WELL TPW-A1	REMARKS	PROJECT	
	NO/TYPE	SYMBOL	% REC.							200-08466-08014	NAME:
1790							DOLOSTONE, Brown (10 YR 5/3) to limestone, pale yellow (2.5 Y 8/2.5), moderately porous to porous, moderate to well indurated, crystalline to grainstone texture			AWS Wellfield Exp. Test Wells	CLIENT: TWA
1800							DOLOSTONE and Chert, Pale Yellow to Gray (10 YR 7/3 to 5/1), low porosity, well indurated, crystalline to cryptocrystalline texture		Very hard drilling interval	Site A	LOCATION: Site A
1810							DOLOSTONE, Pale Brown to Pale Yellow (10 YR 6/3 to 2.5 Y 7/3); Limestone, chalky pale yellow (2.5Y 7/3), with chert, very dark gray (10RY 3/1), low porosity, well indurated			BORING	GR. ELEV: ~70' NGVD
1820							DOLOSTONE, Light Yellowish Brown (2.5Y 6/3), dense, low porosity, very well indurated			DEPTH: 2360'	DATE STARTED: 11/23/09
1830							DOLOSTONE, Light Yellowish Brown (2.5Y 6/3), dense, low porosity, very well indurated			DATE ENDED: 01/07/10	GROUNDWATER
1840							DOLOSTONE, Light Yellowish Brown (2.5Y 6/3), dense, low porosity, very well indurated			DEPTH:	TIME:
1850							DOLOSTONE, Light Yellowish Brown (2.5Y 6/3), dense, low porosity, very well indurated			DATE:	REMARKS:
										DRILLING	
								Calcite crystals 0.25 - 1.5 cm		CREW: FDD	
										SUPERVISOR: Adrian	PIEZ/WELL
										CASING DIAM:	
										CASING TYPE:	
										CASING DEPTH:	
										SCREEN DEPTH:	
										SCREEN LENGTH:	
										FILTER PACK:	
										RISER HEIGHT ALS:	
										T.O.C. ELEV:	REMARKS
											Munsell Color Chart Used



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FIELD BORING LOG

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DEPTH (FT)	SAMPLE			BLOWS PER 6'	N-VALUE	BORING LOG	MATERIAL DESCRIPTION CLASSIFICATION	WELL TPW-A1	REMARKS	PROJECT	
	NO/TYPE	SYMBOL	% REC.							200-08466-08014	NAME:
1910							LIMESTONE & DOLOSTONE, Bluish Gray (Gley II 6/5PB), low porosity, well indurated, crystalline, minor gypsum crystals on DOLOSTONE			AWS Wellfield Exp. Test Wells	CLIENT: TWA
1920										LOCATION: Site A	BORING
1920							DOLOSTONE & LIMESTONE, Bluish Gray (Gley II 5/10B) and Pale Brown (10YR 6/3), moderate to low porosity, well indurated, gypsum crystals			GR. ELEV: ~70' NGVD	DEPTH: 2360'
1930										DATE STARTED: 11/23/09	DATE ENDED: 01/07/10
1930							LIMESTONE, Light Gray (10YR 7/2), moderate to low porosity, well indurated, low density, crystal intergrowth texture			GROUNDWATER	
1940										DEPTH:	TIME:
1940							DOLOSTONE, Pale Brown (10YR 6/3), moderate porosity (intercrystal), well indurated, crystalline to sucrosic texture, low density, minor gypsum crystals			DATE:	REMARKS:
1950										DRILLING	
1950							LIMESTONE, Light Gray to Very Pale Brown (10YR 7/2.5), moderate intercrystal porosity, moderate to well indurated, fossiliferous (shell casts), low density, dolomite and gypsum fragments			CREW: FDD	SUPERVISOR: Adrian
1960										PIEZ/WELL	
1960										CASING DIAM:	CASING TYPE:
1960										CASING DEPTH:	SCREEN DEPTH:
1960										SCREEN LENGTH:	FILTER PACK:
1960										RISER HEIGHT ALS:	T.O.C. ELEV:
1960							DOLOMITE (SUCROSIC), Pale Brown (10YR 6/3) unconsolidated dolomite rhombohedrons, fine to very fine grain size			REMARKS	
1970										Munsell Color Chart Used	



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FIELD BORING LOG

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DEPTH (FT)	SAMPLE			BLOWS PER 6'	N-VALUE	BORING LOG	MATERIAL DESCRIPTION CLASSIFICATION	WELL TPW-A1	REMARKS	PROJECT	
	NO/TYPE	SYMBOL	% REC.							200-08466-08014	NAME:
1970							DOLOMITE (SUCROSIC), Grayish Brown to Brown (10YR 5/2 to 5/3), porous chert fragments ~1 cm diameter, moderate to well indurated			CLIENT: TWA	AWS Wellfield Exp. Test Wells
1980										LOCATION: Site A	BORING
1980									No Sample Recovery	GR. ELEV: ~70' NGVD	
1990										DEPTH: 2360'	
1990							CHERT & DOLOMITE, Gray to Brown (10YR 6/1 to 5/3) crystalline, low porosity, well indurated, very minor fine sand			DATE STARTED: 11/23/09	
2000										DATE ENDED: 01/07/10	GROUNDWATER
2000							CHERT & DOLOMITE, Very Dark Gray to Gray to Brownish Yellow (10YR 3/1 to 5/1 to 6/6), crystalline to minor sucrosic texture, low porosity, well indurated			DEPTH:	
2010										TIME:	DRILLING
2010							DOLOMITE, Light Yellowish Brown (10YR 6/4), sucrosic texture, low to moderate porosity, moderately indurated, very minor chert (>1 cm)			DATE:	
2020										REMARKS:	
2020							CHERT & DOLOMITE, Grayish Brown (10YR 5/2), fine sand size grains, crystalline to very minor sucrosic texture, moderate to well indurated, low porosity			RIG TYPE:	PIEZ/WELL
2030										CREW: FDD	
										SUPERVISOR: Adrian	
										CASING DIAM:	
										CASING TYPE:	
										CASING DEPTH:	
										SCREEN DEPTH:	
										SCREEN LENGTH:	
										FILTER PACK:	
										RISER HEIGHT ALS:	
										T.O.C. ELEV:	REMARKS
											Munsell Color Chart Used



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DEPTH (FT)	SAMPLE			BLOWS PER 6'	N-VALUE	BORING LOG	MATERIAL DESCRIPTION CLASSIFICATION	WELL TPW-A1	REMARKS	PROJECT	
	NO/TYPE	SYMBOL	% REC.							200-08466-08014	NAME:
2030							DOLOSTONE, Brown (10YR 4/3), sucrosic texture, low porosity, very well indurated		Void encountered at 2039' to 2041' (drill pipe dropped)	AWS Wellfield Exp. Test Wells	
								CLIENT: TWA		LOCATION: Site A	
2040							DOLOSTONE, Brown (10YR 4/3), sucrosic texture, low porosity, very well indurated			BORING	
										GR. ELEV: ~70' NGVD	
2040							DOLOSTONE, Brown (10YR 4/3), sucrosic texture, low porosity, very well indurated			DIA-TYPE: 12.25"	
										DEPTH: 2360'	
2050							DOLOSTONE, Brown (10YR 4/3), sucrosic texture, low porosity, very well indurated			DATE STARTED: 11/23/09	
							very minor chert fragments (>1 cm), very minor fine grained sand			DATE ENDED: 01/07/10	
2060							DOLOSTONE, Brown to Gray (10YR 4/3 to 6/1), LIMESTONE fragments (>1 cm), low porosity, well indurated, sucrosic texture			GROUNDWATER	
										DEPTH:	
2070							DOLOSTONE, Brown (10YR 4/3), low porosity, sucrosic texture, very minor LIMESTONE fragments (>1 cm), well indurated			TIME:	
										DATE:	
2080							DOLOSTONE, Brown (10YR 4/3), low porosity, sucrosic texture, very minor LIMESTONE fragments (>1 cm), well indurated			REMARKS:	
										DRILLING	
2090							DOLOSTONE, Brown (10YR 4/3), low porosity, sucrosic texture, very minor LIMESTONE fragments (>1 cm), well indurated			RIG TYPE:	
										CREW: FDD	
										SUPERVISOR: Adrian	
										PIEZ/WELL	
										CASING DIAM:	
										CASING TYPE:	
										CASING DEPTH:	
										SCREEN DEPTH:	
										SCREEN LENGTH:	
										FILTER PACK:	
										RISER HEIGHT ALS:	
										T.O.C. ELEV:	
										REMARKS	
										Munsell Color Chart Used	



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DEPTH (FT)	SAMPLE			BLOWS PER 6'	N-VALUE	BORING LOG	MATERIAL DESCRIPTION CLASSIFICATION	WELL TPW-A1	REMARKS	PROJECT	
	NO/TYPE	SYMBOL	% REC.							200-08466-08014	NAME:
2090							DOLOSTONE, Brown (10YR 4/3), low porosity, sucrosic texture, very minor LIMESTONE fragments (>1 cm), well indurated			AWS Wellfield Exp. Test Wells	CLIENT: TWA
2100							DOLOSTONE (75%)/LIMESTONE (25%), Brown to Light Gray (10YR 4/3 to 7/2), low porosity, sucrosic texture, moderate to well indurated			Site A	LOCATION: Site A
2110							DOLOSTONE, Brown to Light Gray (10YR 4/3 to 7/2), LIMESTONE fragments (>0.5 cm), low porosity sucrosic texture, grainstone, moderate to well indurated				BORING GR. ELEV: ~70' NGVD DIA-TYPE: 12.25"
2120							DOLOSTONE, Brown to Light Gray (10YR 4/3 to 7/2), LIMESTONE fragments (>0.5 cm), low porosity porous, sucrosic texture, moderate to well indurated				DEPTH: 2360' DATE STARTED: 11/23/09 DATE ENDED: 01/07/10
2130							DOLSTONE, Brown (10YR 4/3), moderate porosity, sucrosic texture, moderate to well indurated				GROUNDWATER DEPTH:
2140							DOLSTONE, Brown (10YR 4/3), moderate porosity, sucrosic texture, moderate to well indurated				TIME: DATE: REMARKS:
2150							DOLSTONE, Brown (10YR 4/3), moderate porosity, sucrosic texture, moderate to well indurated				DRILLING RIG TYPE: CREW: FDD SUPERVISOR: Adrian
											PIEZ/WELL CASING DIAM: CASING TYPE: CASING DEPTH: SCREEN DEPTH: SCREEN LENGTH: FILTER PACK: RISER HEIGHT ALS: T.O.C. ELEV:
											REMARKS Munsell Color Chart Used



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DEPTH (FT)	SAMPLE			BLOWS PER 6"	N-VALUE	BORING LOG	MATERIAL DESCRIPTION CLASSIFICATION	WELL TPW-A1	REMARKS	PROJECT	
	NO/TYPE	SYMBOL	% REC.							200-08466-08014	NAME:
2150							DOLSTONE, Brown (10YR 3/2), microcrystalline low porosity, sachchoroidal texture, moderate to well indurated			CLIENT: TWA	AWS Wellfield Exp. Test Wells
2160										LOCATION: Site A	BORING
2160							DOLSTONE, Brown (10YR 3/2), microcrystalline sachchoroidal texture, low porosity, moderate to well indurated			GR. ELEV: ~70' NGVD	
2170										DIA-TYPE: 12.25"	
2170							DOLSTONE, Brown to Dark Brown (10YR 5/2 to 3/3), slow porosity, crystalline to minor sucrosic texture, moderate to well indurated, minor CHERT fragments (approximately 1 cm)			DEPTH: 2360'	
2180										DATE STARTED: 11/23/09	GROUNDWATER
2180							DOLSTONE, Dark Grayish Brown to Very Dark Gray (10YR 4/2 to 3/1), low porosity, crystalline to minor sucrosic texture, moderate to well indurated			DATE ENDED: 01/07/10	
2190											DRILLING
2190							DOLSTONE, Dark Grayish Brown (10YR 4/2), low porosity, crystalline to minor sucrosic texture, moderate to well indurated			REMARKS:	
2200										RIG TYPE:	
2200							DOLSTONE, Grayish Brown (10YR 5/2), low porosity, crystalline texture, moderate to well indurated, very minor dark layering			CREW: FDD	PIEZ/WELL
2210										SUPERVISOR: Adrian	
											CASING DIAM:
											CASING TYPE:
											CASING DEPTH:
											SCREEN DEPTH:
											SCREEN LENGTH:
											FILTER PACK:
											RISER HEIGHT ALS:
											T.O.C. ELEV:
											REMARKS
											Munsell Color Chart Used



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DEPTH (FT)	SAMPLE			BLOWS PER 6'	N-VALUE	BORING LOG	MATERIAL DESCRIPTION CLASSIFICATION	WELL TPW-A1	REMARKS	PROJECT	
	NO/TYPE	SYMBOL	% REC.							200-08466-08014	NAME:
2210							DOLSTONE, Very Dark Grayish Brown (10YR 3/2), low porosity, crystalline texture, moderately indurated, minor CHERT fragments (>1 cm), Black and very dark brown		White veins in sample (calcite)	AWS Wellfield Exp. Test Wells	CLIENT: TWA
2220							DOLSTONE, Very Dark Grayish Brown (10YR 3/2), low porosity, crystalline texture, moderately indurated, minor CHERT fragments (>1 cm), Black and Very Dark Brown		White veins in sample (calcite)	LOCATION: Site A	BORING
2220							DOLSTONE, Very Dark Grayish Brown (10YR 3/2), low porosity, crystalline texture, moderately indurated, minor CHERT fragments (>1 cm), Black and Very Dark Brown		White veins in sample (calcite)	GR. ELEV: ~70' NGVD	DEPTH: 2360'
2230							DOLSTONE, Grayish Brown (10YR 5/2), low porosity, crystalline texture, moderate to well indurated, very minor CHERT fragments (>1 cm)		White veins in sample (calcite)	DATE STARTED: 11/23/09	DATE ENDED: 01/07/10
2230							DOLSTONE, Grayish Brown (10YR 5/2), low porosity, crystalline texture, moderate to well indurated, very minor CHERT fragments (>1 cm)		White veins in sample (calcite)	GROUNDWATER	
2240							DOLSTONE, Brown (10YR 5/3), low to moderate porosity, crystalline texture, moderate to well indurated, very minor dark layering		White veins in sample (calcite)	DEPTH:	TIME:
2240							DOLSTONE, Brown (10YR 5/3), low to moderate porosity, crystalline texture, moderate to well indurated, very minor dark layering		White veins in sample (calcite)	DATE:	REMARKS:
2250							DOLSTONE, Light Brownish Gray (10YR 6/2), low to moderate porosity, crystalline texture, moderate to well indurated, very minor dark layering		White veins in sample (calcite)	DRILLING	
2250							DOLSTONE, Light Brownish Gray (10YR 6/2), low to moderate porosity, crystalline texture, moderate to well indurated, very minor dark layering		White veins in sample (calcite)	CREW: FDD	SUPERVISOR: Adrian
2260							DOLSTONE, Light Brownish Gray to Grayish Brown (10YR 6/2 to 5/2), low porosity, well indurated		White veins in sample (calcite)	PIEZ/WELL	
2260							DOLSTONE, Light Brownish Gray to Grayish Brown (10YR 6/2 to 5/2), low porosity, well indurated		White veins in sample (calcite)	CASING DIAM:	CASING TYPE:
2270							DOLSTONE, Light Brownish Gray to Grayish Brown (10YR 6/2 to 5/2), low porosity, well indurated		White veins in sample (calcite)	CASING DEPTH:	SCREEN DEPTH:
2270							DOLSTONE, Light Brownish Gray to Grayish Brown (10YR 6/2 to 5/2), low porosity, well indurated		White veins in sample (calcite)	SCREEN LENGTH:	FILTER PACK:
2270							DOLSTONE, Light Brownish Gray to Grayish Brown (10YR 6/2 to 5/2), low porosity, well indurated		White veins in sample (calcite)	RISER HEIGHT ALS:	T.O.C. ELEV:
2270							DOLSTONE, Light Brownish Gray to Grayish Brown (10YR 6/2 to 5/2), low porosity, well indurated		White veins in sample (calcite)	REMARKS	
2270							DOLSTONE, Light Brownish Gray to Grayish Brown (10YR 6/2 to 5/2), low porosity, well indurated		White veins in sample (calcite)	Munsell Color Chart Used	



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FIELD BORING LOG

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DEPTH (FT)	SAMPLE			BLOWS PER 6'	N-VALUE	BORING LOG	MATERIAL DESCRIPTION CLASSIFICATION	WELL TPW-A1	REMARKS	PROJECT	
	NO/TYPE	SYMBOL	% REC.							200-08466-08014	NAME:
2270							DOLSTONE, Light Gray (10YR 7/1), low porosity, well indurated, microcrystalline texture, fossiliferous			CLIENT: TWA	AWS Wellfield Exp. Test Wells
2280										LOCATION: Site A	BORING
2280							DOLSTONE, Light Gray (10YR 7/1), low porosity, well indurated, microcrystalline texture, fossiliferous			GR. ELEV: ~70' NGVD	
2290										DIA-TYPE: 12.25"	
2290							DOLSTONE, Gray to Grayish Brown (10YR 6/2 to 5/2), low porosity, well indurated, microcrystalline texture		Small sample volume	DEPTH: 2360'	GROUNDWATER
2300										DATE STARTED: 11/23/09	
2300							DOLSTONE, Gray to Grayish Brown (10YR 6/2 to 5/2), low porosity, well indurated, microcrystalline texture, 3 - 6 mm fragments			DATE ENDED: 01/07/10	DRILLING
2310										REMARKS:	
2310							DOLSTONE, Brown and Gray (10YR 7/2 to 6/2), low porosity, well indurated, microcrystalline texture,			RIG TYPE:	
2320										CREW: FDD	PIEZ/WELL
2320							DOLSTONE, Gray (10YR 4/2), low porosity, well indurated, microcrystalline texture			SUPERVISOR: Adrian	
2330										CASING DIAM:	
										CASING TYPE:	
										CASING DEPTH:	
										SCREEN DEPTH:	
										SCREEN LENGTH:	
										FILTER PACK:	
										RISER HEIGHT ALS:	
										T.O.C. ELEV:	REMARKS
											Munsell Color Chart Used



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FIELD BORING LOG

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DEPTH (FT)	SAMPLE			BLOWS PER 6"	N-VALUE	BORING LOG	MATERIAL DESCRIPTION CLASSIFICATION	WELL TPW-A1	REMARKS	PROJECT		
	NO/TYPE	SYMBOL	% REC.							200-08466-08014	NAME:	
2330							DOLSTONE, Gray to Dark Gray (10YR 4/2 to 6/1), low porosity, well indurated, microcrystalline texture			CLIENT: TWA	LOCATION: Site A	
2340										BORING		
2340							DOLSTONE, Dark Gray (10YR 5/1), low porosity, well indurated, microcrystalline texture			GR. ELEV: ~70' NGVD	DIA-TYPE: 12.25"	
2350										DEPTH: 2360'	DATE STARTED: 11/23/09	
2350							DOLSTONE, Dark Gray (10YR 5/1), low porosity, well indurated, microcrystalline texture			DATE ENDED: 01/07/10	GROUNDWATER	
2360										DEPTH:	TIME:	
2360										DATE:	REMARKS:	
2370										DRILLING		
2370										RIG TYPE:	CREW: FDD	
2380										SUPERVISOR: Adrian	PIEZ/WELL	
2380										CASING DIAM:	CASING TYPE:	
2390										CASING DEPTH:	SCREEN DEPTH:	
										SCREEN LENGTH:	FILTER PACK:	
										RISER HEIGHT ALS:	T.O.C. ELEV:	
										REMARKS		
										Munsell Color Chart Used		



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FIELD BORING LOG

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DEPTH (FT)	SAMPLE			BLOWS PER 6'	N-VALUE	BORING LOG	MATERIAL DESCRIPTION CLASSIFICATION	WELL TPW-A1	REMARKS
	NO/TYPE	SYMBOL	% REC.						
2390									
2400									
2400									
2410									
2410									
2420									
2420									
2430									
2430									
2440									
2440									
2450									

PROJECT
200-08466-08014

NAME:
AWS Wellfield Exp. Test Wells

CLIENT: TWA

LOCATION: Site A

BORING

GR. ELEV: ~70' NGVD

DIA-TYPE: 12.25"

DEPTH: 2360'

DATE STARTED: 11/23/09

DATE ENDED: 01/07/10

GROUNDWATER

DEPTH:

TIME:

DATE:

REMARKS:

DRILLING

RIG TYPE:

CREW: FDD

SUPERVISOR: Adrian

PIEZ/WELL

CASING DIAM:

CASING TYPE:

CASING DEPTH:

SCREEN DEPTH:

SCREEN LENGTH:

FILTER PACK:

RISER HEIGHT ALS:

T.O.C. ELEV:

REMARKS

Munsell Color Chart Used