TABLE 2.5-4

PROBABLE HYDROLOGIC EFFECTS OF MINING
SOUTH HEART LIGNITE MINE

Owner	Certification ID	Well or Spring	Date of Certification	Use	Well or Spring Location						Depth of Well (ft)	Water-Bearing Unit	Top of Screen Depth (ft)	Bottom of Screen Depth (ft)	Probable Impacts of Mining	Approximate Closest Distance to Open Mine Pits (ft)	Year of Closest Distance to Open Mine Pit	Probable Hydrologic Reclamation Actions
					Township	Range	Section	1/4	1/4	1/4								
Joe and Robin Blankenship	JBLANKENSHIP001	Well	Nov 2008	Stock	139N	98W	12	NE	NE	NW	*60*	Underburden - HT Butte (assumed)			No anticipated impact	10700	2027	None
John Buckman	JBUCKMAN001	Well	Oct 2008	Domestic	139N	98W	15	SE	SE	SE	75	Overburden - D Coal (assumed)			Mined through in 2023	--	2023	Water replacement
David and Viola Hoffman	VHOFFMAN001	Well	Sep 2009	Domestic	139N	98W	12	SW	SW	NE	*60*	Overburden - D Coal (assumed)			No anticipated impact	6200	2027	None
Floyd and Muriel Hurt	FLHURT001	Well	Jun 2008	Domestic	139N	98W	13	NW	NW	SE	62	Overburden - D Coal (assumed)			Little to no anticipated impact	5300	2042	Pump may need to be lowered in post-mining
Floyd and Muriel Hurt	FLHURT002	Well	Nov 2008	Domestic	139N	98W	13	NW	NE	SW	*65*	Overburden - D Coal (assumed)			Little to no anticipated impact	5400	2042	Pump may need to be lowered in post-mining
Leon Keator	LKEATOR001	Well	Sep 2009	Not in use	139N	98W	12	SW	SE	NW	Unknown	Unknown, assumed to be Overburden - D Coal			Little to no anticipated impact	6800	2042	Pump may need to be lowered in post-mining
Leon Keator	LKEATOR002	Well	Sep 2009	Not in use	139N	98W	12	SW	SE	NW	Unknown	Unknown, assumed to be Overburden - D Coal			Little to no anticipated impact	6900	2042	Pump may need to be lowered in post-mining
Wayne and Marla Kubas	WKUBAS001	Well	Nov 2008	Domestic	139N	98W	13	NW	NW	NE	*60*	Overburden - D Coal (assumed)			Little to no anticipated impact	5800	2042	Pump may need to be lowered in post-mining
Donald and Mildred Kudrna	DKUDRNA001	Well	Nov 2008	Domestic	139N	98W	13	NW	NW	NE	55	Overburden - D Coal (assumed)			Little to no anticipated impact	5200	2042	Pump may need to be lowered in post-mining
Kenneth Kudrna	KKUDRNA001	Well	Oct 2009	Domestic/Stock	139N	97W	30	SW	NE	SW	200	Underburden - HT Butte (interpreted from data)	170	200	No anticipated impact	10000	2042	None
Kenneth Kudrna	KKUDRNA002	Well	Oct 2009	Domestic/Stock	139N	97W	30	SW	SE	NW	200	Underburden - HT Butte (interpreted from data)	170	200	No anticipated impact	10400	2042	None
Quain and Lorraine Kudrna	QKUDRNA001	Well	Nov 2008	Domestic/Stock	139N	98W	12	SW	SE	NW	80	Overburden - D Coal (assumed)			Little to no anticipated impact	7100	2042	Pump may need to be lowered in post-mining
Quain and Lorraine Kudrna	QKUDRNA002	Well	Nov 2008	Not in use	139N	98W	12	SW	SE	NW	70	Overburden - D Coal (assumed)			Little to no anticipated impact	7100	2042	Pump may need to be lowered in post-mining
Katherine and Patrick Kuylen	PKUYLEN001	Well	Sep 2008	Domestic	139N	98W	27	NW	SW	SE	Unknown	Unknown, assumed to be Overburden - D Coal			Mined through in 2039	--	2039	Water replacement
Katherine and Patrick Kuylen	PKUYLEN002	Well	Sep 2008	Stock	139N	98W	27	NW	SW	SE	Unknown	Unknown, assumed to be Overburden - D Coal			Mined through in 2039	--	2039	Water replacement
Katherine and Patrick Kuylen	PKUYLEN003	Well	Sep 2008	Stock	139N	98W	27	SW	SE	NE	Unknown	Unknown, assumed to be Overburden - D Coal			Mined through in 2039	--	2039	Water replacement
Martha Kuylen	MKUYLEN001	Well	Nov 2008	Domestic	139N	98W	13	NW	NW	SE	71	Overburden - D Coal (assumed)			Little to no anticipated impact	4900	2042	Pump may need to be lowered in post-mining
Robert and Brenda Kuylen	BKUYLEN001	Well	Oct 2008	Stock	139N	98W	21	SW	SW	SE	Unknown	Unknown, assumed to be Overburden - D Coal			Mined through in 2020	--	2020	Water replacement
Robert and Brenda Kuylen	BKUYLEN002	Well	Oct 2008	Stock	139N	98W	16	SW	SE	SW	128	Underburden - HT Butte (assumed)			Mined through in 2035	--	2035	Water replacement
Robert and Brenda Kuylen	BKUYLEN006	Well	Oct 2008	Not in use	139N	98W	21	NW	NE	NW	96	Overburden - D Coal (assumed)			Mined through in 2035	--	2035	Water replacement
Gary and Barbara Meduna	GMEDUNA001	Well	Oct 2009	Stock	139N	98W	9	NE	SW	NW	60	Overburden - D Coal (assumed)			Little to no anticipated impact	3900	2033	Pump may need to be lowered in post-mining
Gary and Barbara Meduna	GMEDUNA003	Well	Oct 2009	Domestic	139N	98W	10	NE	SE	SW	60	Overburden - D Coal (assumed)			Little to no anticipated impact	2900	2027	Pump may need to be lowered in post-mining
Gary and Barbara Meduna	GMEDUNA002	Well	Oct 2009	Stock	139N	98W	10	SE	NE	NW	60	Overburden - D Coal (assumed)			Little to no anticipated impact	2600	2027	Pump may need to be lowered in post-mining
Dave Metz	DMETZ001	Well	Sep 2009	Domestic	139N	98W	12	NW	SW	NE	100	Overburden - D Coal (assumed)	80	100	No anticipated impact	7400	2027	None
Linda Mosbrucker	LMOSBRUCKER001	Well	Sep 2009	Domestic	139N	98W	12	SW	SE	NW	60	Overburden - D Coal (assumed)			Little to no anticipated impact	6900	2042	Pump may need to be lowered in post-mining
Darby and Renita O'Brien	DOBRIEN001	Well	field certification pending	Not in use	139N	98W	13	SW	SW	SW	84	Overburden - D Coal (sandstone and D Coal)	64	84	Head loss during mining	2100	2042	Pump may need to be lowered or water replaced

TABLE 2.5-4

PROBABLE HYDROLOGIC EFFECTS OF MINING
SOUTH HEART LIGNITE MINE

Owner	Certification ID	Well or Spring	Date of Certification	Use	Well or Spring Location						Depth of Well (ft)	Water-Bearing Unit	Top of Screen Depth (ft)	Bottom of Screen Depth (ft)	Probable Impacts of Mining	Approximate Closest Distance to Open Mine Pits (ft)	Year of Closest Distance to Open Mine Pit	Probable Hydrologic Reclamation Actions
					Township	Range	Section	1/4	1/4	1/4								
Darby and Renita O'Brien	DOBRIEN002	Well	field certification pending	Not in use	139N	98W	13	SW	SW	SW	60	Overburden - D Coal (D Coal and shale)	44	57	Head loss during mining	2100	2042	Pump may need to be lowered or water replaced
James D. and Rosella J. Perdaems	JMPERDAEMS001	Well	Sep 2008	Stock	139N	98W	22	NE	NW	SE	100	Overburden - D Coal (interpreted from data)			Mined through in 2021	--	2021	Water replacement
James D. and Rosella J. Perdaems	JMPERDAEMS002	Well	Sep 2008	Domestic	139N	98W	22	NE	NE	SE	56	Overburden - D Coal (assumed)			Head loss during mining	400	2022	Pump may need to be lowered or water replaced
James D. and Rosella J. Perdaems	JMPERDAEMS003	Well	Sep 2008	Stock	139N	98W	14	SW	NE	SW	Unknown	Unknown, assumed to be Overburden - D Coal			Head loss during mining	1700	2024	Pump may need to be lowered or water replaced
James D. and Rosella J. Perdaems	JMPERDAEMS004	Well	Sep 2008	Stock	139N	98W	23	NW	NW	SW	Unknown	Unknown, assumed to be Overburden - D Coal			Head loss during mining	1100	2022	Pump may need to be lowered or water replaced
Jerry and Sandra Perdaems	JRPERDAEMS001	Well	Sep 2008	Domestic	139N	98W	22	SE	SE	SW	84	Overburden - D Coal (assumed)	0	84	Head loss during mining	700	2040	Pump may need to be lowered or water replaced
Robert Privratsky	RPRIVRAT001	Well	Oct 2009	Domestic/Stock	138N	98W	10	NE	NE	NW	100	Overburden - D Coal (assumed)			No anticipated impact	11400	2039	None
Robert Privratsky	RPRIVRAT002	Well	Oct 2009	Not in use	138N	98W	10	NE	NE	NW	Unknown	Unknown, assumed to be Overburden - D Coal			No anticipated impact	11300	2039	None
Elaine Splichal	ESPLICHAL001	Well	Sep 2009	Domestic	139N	98W	12	SW	SE	NW	48	Overburden - D Coal (assumed)			Little to no anticipated impact	7000	2027	Pump may need to be lowered in post-mining
Jerry Wagner	JWAGNER001	Well	Oct 2009	Domestic/Stock	139N	98W	3	SW	SE	NE	470	Deeper aquifer system			No anticipated impact	6100	2028	None
Jerry Wagner	JWAGNER002	Well	Oct 2009	Stock	139N	98W	3	SW	SE	NW	485	Deeper aquifer system			No anticipated impact	6200	2028	None
Wagner Farms LP	GLWAGNER001	Well	Sep 2008	Stock	139N	98W	26	NW	NW	NW	100	Overburden - D Coal (assumed)	88	98	Head loss during mining	2500	2040	Pump may need to be lowered or water replaced
Wagner Farms LP	GLWAGNER002	Well	Sep 2008	Domestic/Stock	139N	98W	26	NW	SE	SE	92	Overburden - D Coal (assumed)	0	92	Head loss during mining	1700	2040	Pump may need to be lowered or water replaced
Darlene and Christopher Zarak	CZARAK001	Well	Sep 2009	Stock	139N	98W	8	NE	NE	NE	Unknown	Unknown, assumed to be Overburden - D Coal			Little to no anticipated impact	5000	2036	Pump may need to be lowered or water replaced
Darlene and Christopher Zarak	CZARAK002	Well	Sep 2009	Stock	139N	98W	8	NE	SE	SW	Unknown	Unknown, assumed to be Overburden - D Coal			Little to no anticipated impact	3400	2036	Pump may need to be lowered or water replaced
Daryl and Laurie Zarak	DZARAK001	Well	Nov 2008	Stock	139N	98W	6	NE	SW	SW	Unknown	Unknown, assumed to be Overburden - D Coal			No anticipated impact	10600	2043	None
Daryl and Laurie Zarak	DZARAK002	Well	Nov 2008	Stock	139N	98W	6	NE	SW	SW	90	Overburden - D Coal (assumed)			No anticipated impact	10300	2043	None
George and Arlene Zarak	GZARAK001	Well	Nov 2008	Domestic	139N	98W	6	SW	SE	NE	*90*	Overburden - D Coal (assumed)			No anticipated impact	9000	2043	None
George and Arlene Zarak	GZARAK002	Well	Nov 2008	Stock	139N	98W	6	SW	SE	NW	84	Overburden - D Coal (assumed)	68	84	No anticipated impact	9300	2043	None

Notes:

Values in *italics* are estimated

Interpreted water bearing units are based on geology and well screen information provided by the well owner or on State Water Commission forms

Assumed water bearing units are based on limited available data and professional judgement

Closest distance to open mine pit is not provided for wells that will likely be destroyed by mining