

## **APPENDIX 5**

### **OTHER RELEVANT DATA**

- 5.1 Final Evaluation of Villages**
- 5.2.1 Location of Geophysical Survey**
- 5.2.2 Result of Geophysical Survey**
- 5.2.3 Evaluation of Groundwater Development**
- 5.3.1 Result of Field Water Quality Measurement**
- 5.3.2 Measurement Situation**
- 5.4 Evaluation of Villages (Step5)**
- 5.5 Number of Wells to be drilled by the Procured Rigs in Phase 2 Project**
- 5.6 Total Dynamic Head of Submersible Pumps to be Installed**
- 5.7 Summary of Socio-Economic Survey Results**
- 5.8 Breakdown of the Cost to be Borne by Myanmar Side**

## Appendix 5 Other Relevant Data

## Appendix 5.1 List of Evaluation Result of the Target Villages

Region	Villages	ID	Estimated Drilling Depth		Estimated SWL. m	Results of Hydrogeological Field Reconnaissance	Step-1 Hydro	Step-2 Demand	Step-3 W.Q.	Step-4 O.M.	Step-5 Possibility	Step-6 Priority	Estimated Thickness of Geology			Problem on Existing Water Sources		
			feet	m									Q2 + Surface	Irrawaddi	Pegu	Water Quantity	Water Quality	Distance to Water Sources
Sagaing	Yonedaw	SA2-01	530	160	40	Old Alluvial Plane(Q2). Existing Well Dep.=150m, EC=<1500uS/cm. However, NO3=20, F=1.5 in Dep=160m TW by Pack Test. Water Quality shall be carried out.	Δ	○	○	○	C	-1	10 m	150 m	0 m	x	Δ	○
	Nyaungbinthar	SA2-02	530	160	40	Border area between Irrawaddi and Alluvium. Existing water source: 10m Dug Well (EC=2,470uS/cm). 82m TW (EC=1500uS/cm & Yield=800GPH). Sufficient water amount is expected in more deeper layer than 100m.	○	○	-	○	A	-1	10 m	150 m	0 m	-	-	-
	Maungthaung	SA2-03	500	150	40	Irrawaddi formation area. 112m TW (EC=620uS/cm, Yield=800GPH), 73m TW (EC=2,610uS/cm, and NO3 more than 45mg/l. It is considered that contamination from surface layer).	○	○	-	○	B	-1	16 m	134 m	0 m	-	-	-
	Kantawthar	SA2-04	420	125	39	Irrawaddi formation area. 122m & 62m TW (EC is lower than 1000uS/cm). 10 private TW (Average dep.=61m) exist and drinking water is enough. However, domestic water and livestock water is necessary.	○	○	-	○	C	-1	3 m	122 m	0 m	Δ	○	○
	Mhonehtoo	SA2-05	330	100	30	Border area between Irrawaddi and Alluvium. 115m TW ( EC=6280uS/cm, Sulfurous smell), 146m TW drilled by DRD, salty). Neighbor village Twogyi has 115m TW (EC=1700uS/cm). VES survey is necessary to evaluate groundwater condition.	Δ	○	○	○	A	-1	3 m	3 m	94 m	x	x	○
	Watlou-I	SA2-06	330	100	36	Irrawaddi formation gentle hill area. 70m TW (EC:1,000uS/cm). 20 private wells were constructed in 2013 cause of drought.	○	○	-	○	C	-1	6 m	94 m	0 m	x	○	○
	Thanbinkan	SA2-07	500	150	70	Irrawaddi formation area. Only one TW. 152m (MONO pump, 2500GPH, F=0.8) Drinkable water. 192m TW constructed by UNICEF two years ago has problem with submersible pump).	Δ	○	○	○	A	-1	5 m	145 m	0 m	Δ	Δ	○
	Natyaygan	SA2-08	660	200	61	Irrawaddi formation area. 173m TW (Mono pump, EC=2,820uS/cm, F=0.8mg/l). People use water reservoir. Try to find drinkable water layer up to 100m or more deeper than 200m.	Δ	○	○	○	B	-1	5 m	195 m	0 m	Δ	x	○
	Sithar	SA2-09	330	100	44	Irrawaddi formation area. Existing wells drilled around 100m. EC:650uS/m to 1300uS/m.	○	○	-	○	A	-1	5 m	95 m	0 m	Δ	Δ	○
	Oakkan	SA2-10	760	230	3	Irrawaddi formation area. 224m Artesian TW (EC:861uS/cm).	○	○	-	○	C	-1	20 m	210 m	0 m	x	○	Δ
	Warryaung	SA2-11	830	250	55	Irrawaddi formation area. 244m TW donated by NAG (EC=920uS/cm). Private 60m TW (EC=720uS/cm). Both shallow TW and deep TW can be developed.	○	○	-	○	A	-1	5 m	145 m	100 m	x	○	○
	Wartannkalay	SA2-12	350	105	43	Irrawaddi formation area. 97m TW (MONO pump, EC=912uS/cm, 7000GPH)	○	○	-	○	C	-1	5 m	100 m	0 m	Δ	Δ	Δ
	Yathar	SA2-13	-	-	-	Old alluvium old terrace. 61m TW (EC1250uS/cm), 182m (EC=4470uS/cm). Aquifer below 200m shall be confirm by geophysical survey.	Δ	○	-	○	D-2							
	Zeepinlel	SA2-14	430	130	50	Irrawaddi formation hill area. 107 ~ 137m 6 TW (EC:700uS/cm). Aquifer below 100m will be constructed.	○	○	-	○	C	-1	5 m	125 m	0 m	x	○	○
	Yonebinyoe	SA2-15	-	-	-	Alluvium(Q2). 91m TW used by monastery on top of the small hill (EC:18,060uS/cm) can not drink. Next village 3km west far from the village has 50m TW (EC:1183uS/cm) using as a village water supply system for several villages. Groundwater condition in deeper than 100m shall be surveyed by geophysical survey.	Δ	○	-	○	D-2							
	Mintaw	SA2-16	560	170	40	Alluvium(Q2). 121m TW (high salinity and can not drink). Same condition as SA2-15.	Δ	○	-	○	B	-1	20 m	0 m	150 m	-	-	-
	Kine	SA2-17	394	120	40	Pegu formation area. Gentle hill area. Only one water source is reservoir. No experience of drilling TW. Good aquifer shall be checked by geophysical survey.	Δ	○	-	○	D-1	6	5 m	115 m	0 m	-	-	-
	Kalarpyan	SA2-18	660	200	36	Irrawaddi formation area. 50 ~ 60m TW (EC=3600uS/cm, F=1.5mg/l by pack test). Low salinity groundwater development below 100m is expected.	Δ	○	○	○	A	-1	5 m	175 m	20 m	x	x	○
	Hlayookan	SA2-19	650	195	121	Alluvium (Q2). 152m TW (EC:1050uS/cm, 450GPH). Groundwater level is too deep (115m) therefore probably can not much water withdraw by air lift.	○	○	-	○	C	-1	40 m	155 m	0 m	x	Δ	○
	Makyeekan	SA2-20	-	-	-	Alluvium (Q2). No deep well. Suction system from 2 shallow wells(24mx2) are used and water send to the elevated tank. It provide water to each household by gravity. Good water quality and sufficient water amount. New well construction is not necessary.	x	○	-	○	-							
	Watkyia	SA2-21	660	200	36	Border area between Irrawaddi and Pegu formation. Village has a gravity water supply system using two wells (167m each). EC=2310uS/cm, Total water amount is 800m3/month (5800GPD).	○	○	-	○	C	-1	5 m	50 m	145 m	x	x	○
	Thahtaykone (Ywarma)	SA2-22	600	180	55	Border area between Irrawaddi and Pegu formation. Hard rock sheet sandwiched under 30m and under 90m distribute hard rock. Below 30m identified Pegu formation.	○	○	-	○	C	-1	5 m	25 m	150 m	○	x	○
	Magyidaw	SA2-23	-	-	-	Alluvium (Q2). 10 Suction systems from 21m well are existing for agriculture. Muu River water is used for drinking. No issue for water quality the result of Pack Test, however river water should be tested by laboratory.	Δ	○	○	○	D-2							
Sagaing	Thindaw	SA2-24	270	80	50	Alluvium(Q2). 116m TW (EC=34,800uS/cm), 82m(EC=1053uS/cm). There is a big difference in water quality place by place. It supposed that is difference of aquifer in these TW.	○	○	-	○	A	-1	10 m	70 m	0 m	x	Δ	Δ
	Lwinyi	SA2-25	730	220	31	Irrawaddi formation gentle hill area. 150m TW for drinking however, water amount is small and not reach to water demand.	○	○	-	○	B	-1	5 m	215 m	0 m	x	○	○
	Koetaungboh (Kyunkone)	SA2-26	610	185	60	Alluvium(Q2). 152m TW and 85m are exist, however people don't like drink it cause of bad taste. People are using reservoir. 152m TW water smells slight sulfurous smell.	Δ	○	○	○	C	-1	30 m	20 m	135 m	x	x	○
	Inngoteto	SA2-27	500	150	50	Irrawaddi formation. 60m TW in monastery are drinking by people, however, water amount is small and new well construction is necessary. Aquifer is locating sub-consolidated Irrawaddi sand layer. Geophysical survey below 60m is necessary.	Δ	○	○	○	C	-1	5 m	145 m	0 m	-	-	-
	Myayhtoo	SA2-28	656	200	150	Irrawaddi formation area. 100m TW (EC<1000uS/cm). Water level is deep as more than 60m and slightly turbid. It is consider that capacity of aquifer is low. Try to fined good aquifer below 100m.	Δ	○	-	○	D-1	6	5 m	195 m	0 m	-	-	-
	Khaowntar	SA2-29	710	215	30	Irrawaddi formation area. Several TW 110 ~ 116m are existing. Half of them are salty water. South-East area is good water quality compare to north west area.	○	○	-	○	C	-1	5 m	210 m	0 m	-	-	-
	Nyuangkanthar	SA2-30	580	175	50	Irrawaddi formation area. 45mTW (EC=693uS/cm), 122m TW (EC=1,905uS/cm). However, every well's water amount is too small in total 200GPD. These are categorized in unsuccessful well. Try to develop good aquifer below 120m.	Δ	○	○	○	C	-1	5 m	145 m	25 m	-	-	-
	Myaymon	SA2-31	510	155	80	Irrawaddi formation area. North part of village's wells are more salty, therefore, drinking water amount is not enough. No construction experience deeper than 100m. Try to develop good aquifer below 100m.	Δ	○	○	○	A	-1	5 m	150 m	0 m	x	x	○
	Layytwinzin	SA2-32	690	210	120	Alluvium (Q2). However, change to Irrawaddi formation in very shallow part. 116m and 146m test wells are dry well and 50GPH respectively unsuccessful well. Only one water source for drink is Dug well and very severe condition.	Δ	○	-	○	C	-1	10 m	50 m	150 m	-	-	-
	Chaungchar	SA2-33	680	205	60	Irrawaddi formation area. 50m TW produce good quality water, however amount is small. Therefore in this project, drill more deep and get more water.	○	○	-	○	B	-1	5 m	200 m	0 m	-	-	-
	Minyogone	SA2-34	370	110	3	Alluvium(Q2). Change to Irrawaddi formation in below layer. Only dug well is exist in this village. 103m TW (Mono Pump, EC= 1224uS/cm, SWL=GL-3.2m) is in the next village. It is close to the artesian well.	○	○	-	○	C	-1	50 m	60 m	0 m	-	-	-
	Shandaw	SA2-35	830	250	0	Irrawaddi formation area. No permanent water source. People get water at the bottom of the irrigation canal. In the neighbour village has 247m TW (2000GPH, EC=1564uS/cm).	○	○	-	○	C	-1	5 m	245 m	0 m	-	-	-
	Kyuntaw (S)	SA2-36	330	100	68	Alluvium (Q2). Flat plane. 100m TW (1000GPH) has already damaged at 1995. Similar type of well will be constructed.	Δ	○	-	○	C	-1	20 m	80 m	0 m	-	-	-
	PalaeThwe (Ywarthit)	SA2-37	430	130	55	Irrawaddi formation hill area. Wide flat area in the hill. 109m TW (Constructed in 2013, EC=924uS/cm). Tuffasious and much clay by weathering.	○	○	-	○	A	-1	5 m	125 m	0 m	x	Δ	○
	Poukkan	SA2-38	492	150	30	Irrawaddi formation area. Flat plane rice. NO deep well. Drinking water was taken from dugwell. 31 Shallow well max 40m however can not use for drinking. 38m TW (EC:1500uS/cm) locating 2 km northeast far from the village is artesian well.	○	○	-	○	D-1	6	5 m	145 m	0 m	-	-	-
	Shwenyaungta w	SA2-39	-	-	-	Irrawaddi formation area. Top of the hill. Water source is only Dug well. Groundwater condition will be evaluate by 2D geophysical survey.	○	○	-	○	D-2							
	Sabeidaw	SA2-40	-	-	-	Irrawaddi formation area. Flat plane and using as rice field. No deep well experience. 10m dug well with hand pump is using as existing water source. Groundwater level is -1.5m (almost artesian). Surface is covered by clayey soil. In 2km north, three 122m TW of artesian are exist.	○	○	-	○	D-2							

Region	Villages	ID	Estimated Drilling Depth		Estimated SWL. m	Results of Hydrogeological Field Reconnaissance	Step-1 Hydro	Step-2 Demand	Step-3 W.Q.	Step-4 O.M.	Step-5 Possibility	Step-6 Priority	Estimated Thickness of Geology			Problem on Existing Water Sources		
			feet	m									Q2 + Surface	Irrawaddi	Pegu	Water Quantity	Water Quality	Distance to Water Sources
Mandalay	Htantawgyi	MA2-01	500	150	60	Irrawaddi formation area. 15m Dug Well (EC:2300-3500µS/cm) can not drink except one dug well. 55m TW use for only Events. Try to find good aquifer in 60 ~ 100m.	○	○	-	○	C	-1	5 m	95 m	50 m	Δ	×	○
	Asone	MA2-02	500	150	60	Pegu formation. No experience of deep well construction. One public shallow well(for drinking). Many household has shallow well. In the rainy season, they use reservoir water.	○	○	-	○	B	-1	5 m	145 m	0 m	-	-	-
	Khinthar(S)	MA2-03	890	270	60	Pegu formation. No deep well experience. There are few shallow wells, however, high salinity and can not drink. Reservoir is used together with neighbor village.	○	○	-	○	C	-1	5 m	0 m	265 m	-	-	-
	Chaysay	MA2-04	530	160	50	Pegu formation. EC of Aquifer of GL-50 ~ -80m is high (EC:2000-3000µS/cm). Therefore, aquifer more than 100m is targeted for the new well construction.	○	○	○	○	A	-1	5 m	0 m	155 m	×	×	○
	Talgyi	MA2-05	560	170	50	Border area between Irrawaddi and Alluvium. Many TWs in the village can not drink cause of salinity.	○	○	-	○	C	-1	5 m	65 m	100 m	-	-	-
	Kuywar	MA2-06	-	-	-	Border area between Pegu formation and Alluvium. EC>20,000µS/cm, F=2-4.	Δ	○	○	○	D-2							
	Yonehto	MA2-07	541	165	60	People are using Dug Well water for drinking. Water is sent from dug well by pump. They can drink and amount is enough. 100m TW (EC=7300 - 8000µS/cm). Pegu formation area.	×	○	-	○	A	3	5 m	160 m	0 m	×	×	○
	Nyaungwum	MA2-08	-	-	-	60 - 100m TW High EC can not drink. Try to find aquifer deeper than 100m	○	○	-	○	D-2							
	Konelel	MA2-09	-	-	-	Many abandon well exist (screen clogging, water quality change to bad, etc.). Shallow water quality is bad. 130m TW also high salinity. Base rock is Pegu layer. Therefore it is considered that new well construction is difficult.	×	○	-	○	-							
	Phaungkadaw	MA2-10	-	-	-	There are many private wells. However, they don't use it now because of water quality problems. 200m TW (EC=6470µS/cm). Therefore, it is considered that new well construction is difficult.	×	○	-	○	-							
	Kaungzin	MA2-11	830	250	100	Border area between Pegu and Irrawaddi formation. 10m Dug Well (EC=2000µS/cm, Fe=0.6). No deep well.	○	○	-	○	C	-1	5 m	95 m	150 m	×	×	○
	Ywarsite	MA2-12	-	-	-	Pegu formation. Dug well (EC=3300µS/cm). 97m and 213m TWs are also bad water quality. Addition, more deep area distribute Pegu formation. Therefore, it is considered that new well construction is difficult.	×	○	-	○	-							
	Kyaungnan	MA2-13	-	-	-	Pegu formation. 78m TW (11,800µS/cm). Deep area is also considered low possibility from the hydrogeological view point. Suction system from 4 shallow wells(18mx4) are used (EC=1,342µS/cm, slightly smell). Therefore, it is considered that new well construction is difficult.	×	○	-	○	-							
	Kyaungkangyibin	MA2-14	660	200	167	Pegu formation. 127m TW (EC=2,120µS/cm) 234m TW constructed DRD in February 2015 (EC=6,540µS/cm).	Δ	○	-	○	C	-1	5 m	0 m	195 m	Δ	×	○
	Nyaunggone	MA2-15	500	150	61	Pegu formation. 91m TW (2800µS/cm) 61m TW located out of village for agriculture (EC=1,192µS/cm). GL-200-300m aquifer shall be consider with electric survey result.	Δ	○	○	○	C	-1	5 m	0 m	145 m	×	Δ	○
	Chaungnar	MA2-16	-	-	-	Border area between Pegu formation and Alluvium. They are using dug well beside stream (F=1.5mg/L). However, water amount become small in dry season.	Δ	○	○	○	D-2							
	Chaungsone(La)	MA2-17	460	140	98	Irrawaddi formation. 135m TW (EC = 1483µS/cm). According to the geophysical survey, drilling depth will be decided.	Δ	○	-	○	A	-1	5 m	135 m	0 m	Δ	×	○
	Kyaukkartaungkone	MA2-18	-	-	-	Pegu formation. Dug Well (low yield and slow recovery). Try to find good aquifer by geophysical survey up to 100m.	Δ	○	-	○	D-2							
	Tharzi	MA2-19	960	290	154	Irrawaddi formation. 250m TW (EC=1609µS/cm). Cooked rice turn to yellow. According to the geophysical survey, drilling depth will be decided.	○	○	-	○	C	-1	5 m	175 m	110 m	×	×	○
	Kanaye	MA2-20	870	265	105	Irrawaddi formation. 250m TW (EC=1516µS/cm). Cooked rice turn to yellow. According to the geophysical survey, drilling depth will be decided.	○	○	-	○	C	-1	5 m	195 m	65 m	Δ	×	○
	Tharyarmaing	MA2-21	660	200	150	Border area between Pegu and Irrawaddi formation. 12 TW (36-55m), however slightly high in F and NO3. It is expected to find aquifer around 150m by geophysical survey.	Δ	○	○	○	B	-1	5 m	15 m	180 m	×	×	○
Mandalay	Oakpo	MA2-22	860	260	30	Alluvium (Q2). Below alluvium Irrawaddi formation distribute. 80 and 230m TW (Total yield 2000GPH). However 230m TW has engine trouble and under repair. Possibility of high calcium content because some people has calculus. According to the geophysical survey, drilling depth will be decided.	Δ	○	○	○	C	-1	30 m	120 m	110 m	×	○	○
	Kangyi	MA2-23	1,150	350	200	Irrawaddi formation. 50m, 220m, 300m (EC=2,000µS/cm F=1.5). Getting water from 300m TW need much cost. Therefore they use it very few.	Δ	○	○	○	C	-1	20 m	110 m	220 m	×	×	○
	Htanekan	MA2-24	890	270	30	Irrawaddi formation. 12m dug well and 138m TW. Village does not have drilling experience over 200m.	○	○	-	○	C	-1	5 m	175 m	90 m	-	-	-
	Waryonesu	MA2-25	1,010	305	11	Irrawaddi formation. 100m TW. Water shortage in dry season.	○	○	-	○	A	-1	5 m	175 m	125 m	-	-	-
	Talkone	MA2-26	910	275	150	Irrawaddi formation. Inside of the village has unsuccessful TW. People get water form next village far from 2 miles. 244m TW constructed by DDA in 2008(JICA) located in the 3 miles east from village.	○	○	-	○	A	-1	5 m	270 m	0 m	-	-	-
	Tawbyar	MA2-27	870	265	176	Irrawaddi formation. 244m TW drilled by DRD at 2 mile east. 198m TW at 1.5 mile east. Good water quality. No deep well inside of the village.	○	○	-	○	B	-1	5 m	260 m	0 m	×	○	×
	Setsetyo	MA2-28	1,290	390	269	Irrawaddi formation. One TW. Low yield. Pump installation is 286m (EC=1800, Fe=1.0, F=0.8)	Δ	○	○	○	A	-1	5 m	385 m	0 m	×	○	○
	Kanzauk	MA2-29	660	200	65	200m TW constructed by BJA in the main village in 2003. Pump position is 128m.	○	○	-	○	A	-1	5 m	195 m	0 m	Δ	Δ	×
	Talbindel	MA2-30	990	300	210	Irrawaddi formation. Rehabilitated by BAJ in 2003 (MONO Pump, EC=1200µS/cm, sand contain, Fe=1.0 mg/l, F=0.5mg/l)	○	○	-	○	A	-1	5 m	295 m	0 m	×	×	Δ
	Mongywettaw	MA2-31	890	270	210	Irrawaddi formation. Main village has a deep well, however, target village does not have deep well.	○	○	-	○	A	-1	5 m	265 m	0 m	-	-	-
	Phoenekan	MA2-32	420	125	35	Irrawaddi formation. Close to the Pegu formation. 3 wells constructed in this village, however, high arsenic. 150m to 200m TW constructed and good water. According to the geophysical survey, drilling depth will be decided.	○	○	-	○	C	-1	5 m	0 m	120 m	×	Δ	Δ
	Nyaungbinthar	MA2-33	660	200	100	Close to the Pegu formation. 230m(750ft) TW (High Fe and salinity) can not use. According to the 2D survey well depth will be decided.	○	○	-	○	A	-1	5 m	195 m	0 m	-	-	-
	Saingan(Tetide)	MA2-34	1,220	370	263	Irrawaddi formation. JICA well exist in the main village.	○	○	-	○	A	-1	5 m	365 m	0 m	-	-	-
	Byugyi	MA2-35	1,020	310	230	309.08m(JICAWELL),DWL=239,SWL=236, constructed in 2003 (EC=900µS/cm)	○	○	-	○	A	-1	5 m	305 m	0 m	Δ	Δ	○
	Aleywar-2	MA2-36	760	230	150	Irrawaddi formation. Water quality is bad in south part of village. Good water quality in north part. Static water level is around 150m. New well will be constructed in the middle area. Fe content is high in the surrounding wells. There is a trend water quality is better in eastern village.	Δ	○	○	○	A	-1	5 m	225 m	0 m	×	×	○
	Tangan	MA2-37	-	-	-	Irrawaddi formation. No deep well in the village. Dagagi village which is located 1 mile south from the village. SWL=150m. Close to the MA2-36. High Fe content (1-3mg/L). Therefore, it is considered that new well construction is difficult.	×	○	-	○	-							
	Lelgyi(Ma)	MA2-38	1,150	350	51.5	Covered by volcanic mudflow. There is some possibility in 300-350m. TW drilled in 1994 rehabilitated however water quality is not good (EC=1200µS/cm, Fe=5.0mg/L, F=0.6mg/L).	Δ	○	○	○	C	-1	5 m	0 m	345 m	Δ	×	×
	Thayattaw	MA2-39	1,150	350	223	Irrawaddi formation area. 390m TW (Yield 600GPH). In the 2 mile far form the village there is a well produce good water quality.	○	○	-	○	C	-1	5 m	195 m	150 m	×	Δ	○
	Nakyathwal	MA2-40	970	295	67	Irrawaddi formation. TW drilled in 1992 (EC=790µS/cm, F=0.2mg/L).	○	○	-	○	A	-1	5 m	290 m	0 m	×	○	×

Region	Villages	ID	Estimated		Estimated SWL. m	Results of Hydrogeological Field Reconnaissance	Step-1 Hydro	Step-2 Demand	Step-3 W.Q.	Step-4 O.M.	Step-5 Possibility	Step-6 Priority	Estimated Thickness of Geology			Problem on Existing Water				
			feet	m									Q2 + Surface	Irrawaddi	Pegu	Water Quantity	Water Quality	Distance to Water Sources		
Magway	Natkan	MG2-01	600	180	75	Irrawaddi formation. 173m (SWL:73m, 1,100GPH, MONO pump).	○	○	-	○	A	-1	5 m	175 m	0 m	×	△	○		
	Thanbo(Ywarthit)	MG2-02	400	120	73	Irrawaddi formation. 120m TW constructed by PDC in 1999 (SWL:84m, EC=1494µS/cm).	○	○	-	○	C	-1	5 m	115 m	0 m	△	×	○		
	Nyaungbinthar	MG2-03	660	200	150	Irrawaddi formation. 200m TW constructed in 1983 by WRUD (SWL:154m, 1400GPH). BAJ repair MONO pump in 2014.	○	○	-	○	A	-1	5 m	195 m	0 m	×	△	△		
	Konegyi	MG2-04	790	240	134	Irrawaddi formation. 195m TW (SWL:137m). BAJ repaired engine in 2014.	○	○	-	○	A	-1	5 m	235 m	0 m	△	△	△		
	Sainggya	MG2-05	660	200	162	Irrawaddi formation. TW BAJ replaced MONO Pump in 2014 (Yield 1,200GPH).	○	○	-	○	B	-1	5 m	195 m	0 m	×	×	△		
	Thapyaysan(N)	MG2-06	630	190	108	Irrawaddi formation. 192m TW abandoned by screen broken (SWL:97m, Yield :2000GPH).	○	○	-	○	A	-1	5 m	185 m	0 m	○	×	○		
	Shwekyaw	MG2-07	660	200	89	Irrawaddi formation. TW 1986 constructed by UNICEF. (MONO pump. SWL:83m. Yield:1500GPH).	○	○	-	○	A	-1	5 m	195 m	0 m	△	×	△		
	Leikkan	MG2-08	400	120	100	Irrawaddi formation. 175m TW constructed by WRUD in 1981. BAJ repair MONO pump in 2014 (Yield 1300GPH).	○	○	-	○	A	-1	5 m	115 m	0 m	△	×	△		
	Ywarthitgyi	MG2-09	600	180	105	Irrawaddi formation. 176m TW drilled by SPDC (SWL=103m).	○	○	-	○	A	-1	5 m	175 m	0 m	△	×	△		
	Kanyaygyi	MG2-10	1,090	330	212	Irrawaddi formation. 327m TW repaired by BAJ in 2007 (SWL:210m, EC:1000µS/cm).	△	○	○	○	C	-1	5 m	325 m	0 m	×	×	△		
	Myaysoon (Ywarthit)	MG2-11	860	260	150	Irrawaddi formation. 259m TW locating next village constructed in 1971 (EC=1100µS/cm).	△	○	○	○	A	-1	5 m	255 m	0 m	○	×	△		
	Zeebwar	MG2-12	450	135	80	Irrawaddi formation. Beside fault and Pegu formation will come in the deep. 152m TW (EC:1040µS/cm).	△	○	○	○	B	-1	5 m	75 m	55 m	-	-	-		
	Yenpyay	MG2-13	560	170	115	Alluvium (Q2). People use water form next village's well (EC:2100µS/cm)	○	○	-	○	A	-1	40 m	130 m	0 m	△	×	×		
	Kyatesu(N)	MG2-14	480	145	23	Alluvium (Q2). 67m private TW (EC=3000µS/cm).	△	○	-	○	A	-1	50 m	95 m	0 m	-	-	-		
	Winkabar	MG2-15	370	110	30	Alluvium (Q2). 110m TW (SWL:30.4m). Groundwater comes from Irrawaddi river. People use water from Irrawaddi river.	△	○	○	○	A	-1	50 m	60 m	0 m	×	○	○		
	Kyatkan	MG2-16	560	170	100	Alluvium (Q2). 170m TW (300gph, EC:1570µS/cm, Oil content.	○	○	-	○	A	-1	40 m	130 m	0 m	×	×	△		
	Sudat	MG2-17	1,220	370	270	Irrawaddi formation. DRD#380m TW constructed by DRD (JICA Phase 1, SWL=146m).	○	○	-	○	A	-1	5 m	195 m	170 m	-	-	-		
	Myaynilain	MG2-18	830	250	160	Irrawaddi formation. Excluded in Phase 1 JICA project. However, 244m TW (SWL:137m) is exist in the 5km far from the village.	○	○	○	○	B	-1	5 m	245 m	0 m	×	△	×		
	Legyinyo	MG2-19	920	280	134	Irrawaddi formation. Pegu formation comes into deep area. 248m TW constructed by BAJ in next village is bad water quality (EC=2400µS/cm, High F and Fe). 278m TW constructed in 1981 (SWL:134m, EC:1410µS/cm) is containing sand.	△	○	○	○	A	-1	5 m	195 m	80 m	△	×	△		
Mandalay	Laytinesin(S)	MG2-20	660	200	109	Irrawaddi formation. 200m TW. constructed in 2003 by DDA (JICA project, SWL:110m, 3500GPH)	○	○	-	○	A	-1	5 m	195 m	0 m	△	△	△		
	Tharmyar	MG2-21	660	200	120	Irrawaddi formation. 198m TW constructed in 2003 by DDA -JICA project (SWL:119m, 54m/h)	○	○	-	○	A	-1	5 m	195 m	0 m	△	○	△		
	Aungmyintha	MG2-22	400	120	55	Irrawaddi formation.	○	○	-	○	C	-1	5 m	115 m	0 m	×	△	△		
	Ngwelay	MG2-23	380	115	52	Irrawaddi formation. 116m TW constructed by WPPD in 1980. Water quality has worsened.	○	○	-	○	B	-1	5 m	110 m	0 m	△	△	△		
	Indaw(N)	MG2-24	480	145	55	Irrawaddi formation. 110m TW constructed by DDA in 2011 (800GPH by airlift).	○	○	-	○	C	-1	5 m	140 m	0 m	△	△	△		
	Htanaungkwin	MG2-25	-	-	-	Hill consisting of Pegu formation approaches the vicinity. More than 30 shallow wells constructed and operated by hand pump, however already dried up. Bad water quality in Deep aquifer in this area because of Pegu formation area. Therefore, it is considered that new well construction is difficult.	×	○	-	○	-	-	-	-	-	-	-	-		
	Manawtgone	MG2-26	430	130	24	Irrawaddi formation covered by Alluvium(Q1) sediment. 128m TW (SWL=24m, 230GPH). Close to the Irrawaddi river.	△	○	○	○	A	-1	10 m	120 m	0 m	-	-	-		
	Kangyigone	MG2-27	730	220	141	Irrawaddi formation. Pegu formation comes in at the deep area. 219m TW constructed by WRUD (EC=3000µS/cm).	○	○	-	○	A	-1	5 m	145 m	70 m	-	-	-		
	Htonepoutchine	MG2-28	370	110	70	Border area between Pegu and Irrawaddi formation. 105m TW (Good water quality). 150m TW (salty water). 3 mile far from village, JICA Well in Thetwin village also high salinity.	○	○	-	○	B	-1	5 m	15 m	90 m	×	○	△		
	Padaukngote (Ywargyi)	MG2-29	-	-	-	150m and 173m TW constructed by DRD were dry well. 183m TW constructed by WRUD (EC2,950µS/cm, Fe=3mg/l) and Iron smell. Therefore, it is considered that new well construction is difficult.	×	○	-	○	-	-	-	-	-	-	-	-		
	Sellel	MG2-30	-	-	-	Irrawaddi formation. In the shallow area Pegu layer will come in. There is groundwater below 260m according to the information of BAJ.	△	○	-	○	D-2	-	-	-	-	-	-	-		
	Padaukngone	MG2-31	-	-	-	Pegu formation. Both shallow well and Deep well are high salinity. Hard limestone nodule is in the Irrawaddi formation and difficult to drill by existing rotary drilling system. Therefore, it is considered that new well construction is difficult.	×	○	-	○	-	-	-	-	-	-	-	-		
	Ywartharlay	MG2-32	-	-	-	Border area between Pegu and Irrawaddi formation. Pegu formation comes in at the deep area.	△	○	○	○	D-2	-	-	-	-	-	-	-		
	Wayonegone	MG2-33	400	120	70	Border area between Pegu and Irrawaddi formation. Hilly terrain. Many nodule contain. 215m TW (high salinity). 100m TW (good water quality). Oakpho village next to the target village has JICA Phase 1 TW (EC=5330µS/cm, SWL=35m).	△	○	-	○	C	-1	5 m	0 m	115 m	-	-	-		
Nyaunggone	MG2-34	370	110	70	Border area between Pegu and Irrawaddi formation. Complex geology.	○	○	-	○	A	-1	5 m	0 m	105 m	-	-	-			
Kyugyaung	MG2-35	730	220	140	Irrawaddi formation. No Deep well experience. Pegu formation comes in lower layer.	○	○	-	○	B	-1	5 m	145 m	70 m	-	-	-			
Kokkohla	MG2-36	804	245	100	Border area between Alluvium (Q2) and Irrawaddi formation. 116m TW located in the 1km far from the village (EC=1500µS/cm)	△	○	○	○	D-1	6	5 m	240 m	0 m	×	×	○			
Kangyigone	MG2-37	755	230	70	Irrawaddi formation. 195m TW (EC=4520µS/cm, F=3mg/L). Water quality test shall be done.	△	○	○	○	C	-1	5 m	225 m	0 m	×	×	○			
Htaukkyantgwin	MG2-38	1,060	320	100	Irrawaddi formation. 165m TW constructed by DRD and 233m TW constructed by RED CROSS were dry well. Drilling over 300m is necessary.	○	○	-	○	A	-1	5 m	315 m	0 m	-	-	-			
Hlebwegyi	MG2-39	840	255	100	Irrawaddi formation. Pegu formation comes in at the deep area.	○	○	-	○	A	-1	5 m	145 m	105 m	-	-	-			
Yayhtwetgyi	MG2-40	600	180	40	Irrawaddi formation. Pegu formation comes in at the deep area.	○	○	-	○	A	-1	5 m	145 m	30 m	-	-	-			
Total			#####	20,005													883 m	#####	4,434 m	20,005 m

(Legend of Step 1-4) [-]: Not performed [○]: No problem [△]: Need to consideration [×]: Difficult to development

(Legend of Step 5) [A]-[D-2] shows possibility of groundwater development. [A] shows highest possibility.

(Legend of Step 6) [1] - [6] shows priority of groundwater development. [1] shows highest priority.

Legend for Needs for Water

- : No problem
- △ : Slightly problem
- × : Problem
- : No deep well use



Appendix 5.2.1 Location of the Geophysical Survey

Location of Vertical Electric Sounding (VES) at Sagaing Region

Region	Township	Village Tracks	Villages	No.	ID	Coordinate of Survey Point (WGS84 UTM)			Survey Method	Surveyor	Remarks
						x	y	z			
Sagaing	Budalin	Htanaungkone	Yonedaw	1	SA2-01	721,184	2,468,685	110	VES	DRD	
		Ngapayin	Nyaungbinthar	2	SA2-02	720,885	2,486,381	108	VES	DRD	
		Maunghtaung	Maunghtaung	3	SA2-03	712,894	2,487,822	121	VES	DRD	
		Ywarthit	Kantawthar	4	SA2-04	704,295	2,487,734	157	VES	DRD	
		Konethar	Mhonehtoo	5	SA2-05	729,874	2,471,014	108	VES	DRD	
		Watluu-l	Watluu-l	6	SA2-06	700,719	2,482,574	114	VES	DRD	
	Chaungoo	Thanbinkan	Thanbinkan	7	SA2-07	742,454	2,430,400	171	VES	DRD	
		Natyaygan	Natyaygan	8	SA2-08	743,821	2,426,594	144	VES	DRD	
	Ayadaw	Ngarrtowma	Sithar	9	SA2-09	742,840	2,472,680	220	VES	DRD	
		Leinhla	Oakkan	10	SA2-10	747,838	2,482,552	138	VES	DRD	
		Warryaung	Warryaung	11	SA2-11	748,170	2,458,383	220	VES	DRD	
		Yechinn	Wartannkalay	12	SA2-12	750,823	2,470,044	170	VES	DRD	
		Nyaungchayhtauk	Yathar	13	SA2-13	766,166	2,448,638	212	VES	DRD	No possibility
		Warryaung	Zeepinle	14	SA2-14	751,516	2,457,534	212	VES	DRD	
	Salingyi	Yonebinyoe	Yonebinyoe	15	SA2-15	711,426	2,428,069	131	VES	DRD	No possibility
		Yonebinyoe	Mintaw	16	SA2-16	712,670	2,428,751	142	VES	DRD	
		Moe Kyo Pyin	Kina	17	SA2-17	711,640	2,437,561	151	VES/2D	DRD/ESS	No possibility
	Myinmu	Kalarpyan	Kalarpyan	18	SA2-18	749,957	2,422,670	89	VES	DRD	
		Nyaungbinkan	Hlayookan	19	SA2-19	758,107	2,439,343	166	VES	DRD	
		Latpankyin	Watkya	20	SA2-21	745,604	2,447,822	252	VES	DRD	
		Latpankyin	Thahlaykone(Ywarma)	21	SA2-22	747,673	2,446,221	254	VES	DRD	
		Inma	Magyidaw	22	SA2-23	774,423	2,444,502	72	VES	DRD	No possibility
	Kanbalu	Thindaw	Thindaw	23	SA2-24	773,385	2,613,108	209	VES	DRD	
		Thindaw	Lwngyi	24	SA2-25	772,013	2,612,839	215	VES	DRD	
		Koetaungboh	Koetaungboh(Kyunkone)	25	SA2-26	773,590	2,620,729	223	VES	DRD	
		Nyaungkanthar	Inngototo	26	SA2-27	768,388	2,598,038	219	VES	DRD	
		Myayhtoo	Myayhtoo	27	SA2-28	745,839	2,565,454	158	VES	DRD	No possibility
		Khaowntar	Khaowntar	28	SA2-29	776,585	2,551,429	191	VES	DRD	
		Nyuangkanthar	Nyuangkanthar	29	SA2-30	770,771	2,597,741	217	VES	DRD	
		Myaymor	Myaymor	30	SA2-31	785,110	2,544,263	214	VES	DRD	
		Pazigy	Layywinzin	31	SA2-32	800,148	2,549,708	147	VES	DRD	
		Paygone(S)	Chaungchar	32	SA2-33	762,397	2,587,371	213	VES	DRD	
	Dabayin	Intimelay	Minyogone	33	SA2-34	731,866	2,513,234	112	VES	DRD	
		Mintelgone	Shandaw	34	SA2-35	725,913	2,501,505	132	VES	DRD	
		Satpyargyin	Kyuntaw (S)	35	SA2-36	728,632	2,505,188	121	VES	DRD	
	Wetlet	Sharkwal	PalaeThwe (Ywarthit)	36	SA2-37	798,805	2,492,481	167	VES	DRD	
		Poukkan	Poukkan	37	SA2-38	796,554	2,481,964	105	VES	DRD	No possibility
		Yonepingone	Shwenyaungtaw	38	SA2-39	803,378	2,470,867	105	VES	DRD	No possibility
		Khawtaw	Sabeitaw	39	SA2-40	786,537	2,473,987	99	VES	DRD	No possibility

Location of Vertical Electric Sounding (VES) at Mandalay Region

Region	Township	Village Tracks	Villages	No.	ID	Coordinate of Survey Point (WGS84 UTM)			Survey Method	Surveyor	Remarks
						x	y	z			
Mandalay	Mahlaiing	Yayhtwet	Htantawgyi	-	MA2-01	Please refer to appendix table 5.2.4			2D	ESS	
		Kyatsse	Asone	1	MA2-02	769,139	2,329,229	283	VES	GH	
		Yachobutar	Khinthar(S)	2	MA2-03	782,173	2,317,120	305	VES	GH	
	Myingyan	Chaysay	Chaysay	3	MA2-04	753,016	2,368,981	130	VES	DRD	
		Pinlar	Talgyi	4	MA2-05	758,848	2,404,789	105	VES	DRD	
		Kuywar	Kuywar	5	MA2-06	750,116	2,369,227	117	VES/2D	DRD/ESS	No possibility
		Phatpin-l	Nyaungwum	6	MA2-08	755,305	2,403,440	106	VES	GH	No possibility
	Ngazon	Kaungzin	Kaungzin	-	MA2-11	Please refer to appendix table 5.2.4			2D	ESS	
		Myinni	Kyaungkangyibin	-	MA2-14	Please refer to appendix table 5.2.4			2D	ESS	
	Taungtha	Nyaunggone	Nyaunggone	-	MA2-15	Please refer to appendix table 5.2.4			2D	ESS	
		Obo	Chaungnar	-	MA2-16	Please refer to appendix table 5.2.4			2D	ESS	No possibility
		Zagyan	Chaungsone(La)	7	MA2-17	735,402	2,354,865	169	VES	GH	
		Kyaukkar	Kyaukkartaungkone	-	MA2-18	Please refer to appendix table 5.2.4			2D	ESS	No possibility
		Kanmyel	Tharzi	8	MA2-19	740,013	2,346,810	192	VES	GH	
		Kanmyel	Kanaye	9	MA2-20	740,583	2,349,003	181	VES	GH	
		Tharyarmaing	Tharyarmaing	-	MA2-21	Please refer to appendix table 5.2.4			2D	ESS	
	Yamethin	Myinnar	Oakpo	10	MA2-22	826,979	2,270,938	187	VES	DRD	
		Nabukyin	Kangyi	11	MA2-23	828,886	2,246,238	214	VES	DRD	
	Pyawbwe	Seitcho	Htanekan	12	MA2-24	804,460	2,275,571	230	VES	DRD	
		Seitcho	Waryonesu	13	MA2-25	804,970	2,275,449	226	VES	DRD	
	Nyaungoo	Sinthamway	Talkone	14	MA2-26	721,119	2,347,365	248	VES	DRD	
		Tawbyar	Tawbyar	15	MA2-27	726,266	2,345,916	304	VES	DRD	
		Seisetyo	Seisetyo	16	MA2-28	721,827	2,329,520	442	VES	DRD	
Pyon		Kanzauk	17	MA2-29	709,761	2,328,732	351	VES	DRD		
Kaptain		Talbindel	18	MA2-30	719,641	2,332,401	378	VES	DRD		
Tawpyar		Mongywettaw	19	MA2-31	724,287	2,337,251	286	VES	DRD		
Tuywintawng		Phoekakan	-	MA2-32	Please refer to appendix table 5.2.4			2D	ESS		
Nyaungbinthar		Nyaungbinthar	-	MA2-33	Please refer to appendix table 5.2.4			2D	ESS		
Kudaw		Saingkan(Tetide)	20	MA2-34	724,351	2,328,820	427	VES	DRD		
Byugyi		Byugyi	21	MA2-35	724,225	2,325,313	467	VES	DRD		
Kyaukpadaung	Tangkan	Aleywar-2	-	MA2-38	Please refer to appendix table 5.2.4			2D	ESS		
	Lelgyi(N)	Lelgyi(Ma)	-	MA2-39	Please refer to appendix table 5.2.4			2D	ESS		
	Karinbyu	Thayattaw	22	MA2-39	729,095	2,325,329	394	VES	DRD		
Nakyaikhiwal	Nakyaikhiwal	23	MA2-40	720,311	2,312,065	433	VES	DRD			

## Location of Vertical Electric Sounding (VES) at Magway Region

Region	Township	Village Tracks	Villages	No.	ID	Coordinate of Survey Point (WGS84 UTM)			Survey Method	Surveyor	Remarks
						x	y	z			
Magway	Magway	Natkan	Natkan	1	MG2-01	706,551	2,233,834	167	VES	ESS	
		Sharzaungkan	Thanbo(Ywarthit)	2	MG2-02	716,284	2,216,242	156	VES	ESS	
		Kyarkan	Nyaungbinthar	3	MG2-03	737,918	2,244,076	267	VES	ESS	
		Nyaungbinthar	Konegyi	4	MG2-04	718,820	2,237,250	263	VES	ESS	
		Paypinsan	Sainggya	5	MG2-05	725,337	2,213,980	232	VES	ESS	
		Thapyaysan	Thapyaysan(N)	6	MG2-06	712,481	2,227,459	174	VES	ESS	
		Supyitsan	Shwekyaw	7	MG2-07	733,733	2,207,458	235	VES	ESS	
		Nyaungkan	Leikkan	8	MG2-08	727,137	2,239,525	168	VES	ESS	
		Nyaungkan	Ywarthilgyi	9	MG2-09	722,040	2,238,165	211	VES	ESS	
	Chauk	Thanbo	Kanyaygyi	10	MG2-10	702,719	2,281,976	319	VES	GH	
		Myaysoon	Myaysoon(Ywarthit)	11	MG2-11	698,121	2,277,376	231	VES	GH	
		Zeebwar	Zeebwar	-	MG2-12	Please refer to appendix table 5-25			2D	ESS	
		Chauunglat	Yenpyay	12	MG2-13	691,263	2,301,508	184	VES	GH	
		Pakharange	Kyalesu(N)	13	MG2-14	685,564	2,292,820	95	VES	GH	
		Salintaung	Winkabar	14	MG2-15	684,439	2,287,271	64	VES	GH	
		Magyikone	Kyalkan	15	MG2-16	685,567	2,292,822	95	VES	GH	
		Gwaypin	Sudat	16	MG2-17	706,601	2,285,682	386	VES	GH	
		Nyaungzin	Myaynilain	17	MG2-18	698,822	2,287,046	306	VES	GH	
	Yenangyaung	Indaw	Legyinyo	-	MG2-19	Please refer to appendix table 5-25			2D	ESS	
	Myathit	Laylinesin	Laylinesin(S)	18	MG2-20	732,777	2,235,825	166	VES	GH	
		Laylinesin	Tharmyar	19	MG2-21	736,054	2,241,105	217	VES	GH	
		Laylinesin	Aungmyinthar	20	MG2-22	733,165	2,231,570	154	VES	GH	
		Wargyiini	Ngwelay	21	MG2-23	738,865	2,222,523	125	VES	GH	
		Htauksharkari	Indaw(N)	22	MG2-24	742,485	2,229,625	131	VES	GH	
		Manawtkone	Manawtgone	23	MG2-26	731,842	2,222,261	96	VES	GH	
	Natmauk	I-Sauk	Kangyigone	24	MG2-27	742,472	2,259,236	269	VES	ESS	
		Htonepoutchine	Htonepoutchine	-	MG2-28	Please refer to appendix table 5-25			2D	ESS	
		Sellei	Sellei	-	MG2-30	Please refer to appendix table 5-25			2D	ESS	No possibility
		Tegyi	Ywarthariay	25	MG2-32	730,882	2,275,378	292	VES	ESS	No possibility
		Wayonegone	Wayonegone	-	MG2-33	Please refer to appendix table 5-25			2D	ESS	
		Htonepoutchine	Nyaunggone	26	MG2-34	732,712	2,256,221	303	VES	ESS	
Taungdwingyi	I-Zauk	Kyugyaung	27	MG2-35	744,680	2,259,329	241	VES	ESS		
	Pantwinlay	Kokkohla	28	MG2-36	765,975	2,218,607	153	VES	ESS	No possibility	
	Payatkyal	Kangyigone	-	MG2-37	Please refer to appendix table 5-25			2D	ESS		
	Warthonepyu	Htaukyantgwin	29	MG2-38	772,133	2,184,859	168	VES/2D	ESS/GH		
	Hlebwegyi	Hlebwegyi	30	MG2-39	747,687	2,200,683	147	VES	VES		
	Hlebwegyi	Yayhtwetgyi	31	MG2-40	743,050	2,197,425	230	VES	VES		

## Location of 2 Dimensional (2D) Electric Survey at Sagaing and Mandalay Region

Region	Township	Village Tracks	Villages	No.	ID	Line No.	Station	Coordinate (WGS84 UTM)		Remarks
							No. (m)	x	y	
Sagaing	Salingyi	Moe Kyo Pyin	Kine	1	SA2-17	1	0	711,302	2,437,865	The possibility cannot be found.
							315	711,589	2,437,534	
							470	711,732	2,437,475	
							-	VES: 711,640	2,437,561	
Mandalay	Mahlaing	Yayhtwet	Htantawgyi	1	MA2-01	1	0	766,801	2,339,158	Recommended DP <sup>1)</sup>
							315	767,110	2,339,198	
							450	767,245	2,339,217	
							630	767,418	2,339,235	
	Myingyan	Kuywar	Kuywar	2	MA2-06	1	0	748,929	2,369,485	The possibility cannot be found.
							155	749,074	2,369,535	
							470	749,373	2,369,634	
							-	VES: 750,116	2,369,227	
	Ngazon	Kaungzin	Kaungzin	3	MA2-11	1	0	764,847	2,403,319	Recommended DP
							155	765,000	2,403,339	
							310	765,154	2,403,359	
							Projected	764,968	2,403,452	
	Natogyi	Myinni	Kyaungkangyibin	4	MA2-14	1	0	757,236	2,368,537	Recommended DP
							120	757,350	2,368,566	
							470	757,696	2,368,613	
		Nyaunggone	Nyaunggone	5	MA2-15	1	0	771,985	2,368,620	Recommended DP
							155	772,054	2,368,758	
							175	772,061	2,368,773	
	Taungtha	Obo	Chaungnar	6	MA2-16	1	0	751,231	2,368,085	The possibility cannot be found.
315							751,538	2,368,137		
630							751,852	2,368,189		
Kyaukkar		Kyaukkartaungkone	7	MA2-18	1	0	748,976	2,341,560	The possibility cannot be found.	
						470	749,365	2,341,816		
						0	745,806	2,342,673		
Tharyarmaing	Tharyarmaing	8	MA2-21	1	275	745,860	2,342,787	Recommended DP		
					315	745,889	2,342,809			
					630	746,181	2,342,934			
Nyaungoo	Tuywintaung	Phoenekan	9	MA2-32	1	0	703,831	2,333,926	The possibility cannot be found.	
						155	703,700	2,334,006		
						470	703,454	2,334,189		
					2	0	703,400	2,334,497	The survey line for grasp to resistivity distribution of existing tube well	
						295	703,693	2,334,484		
						450	703,844	2,334,490		
	3	0	703,720	2,334,028	Recommended DP					
	155	703,880	2,334,002							
		160	703,882	2,333,983						
		310	704,023	2,333,971						
Nyaungbinthar	Nyaungbinthar	10	MA2-33	1	0	712,196	2,322,461	Recommended DP		
					100	712,282	2,322,514			
					320	712,472	2,322,617			
					470	712,599	2,322,697			
Kyaukpadaung	Tangkan	Aleywar-2	11	MA2-36	1	0	718,310	2,309,421	Recommended DP	
						310	718,443	2,309,685		
						520	718,526	2,309,861		
						630	718,601	2,309,973		
	2	0	718,393	2,309,568	The possibility cannot be found.					
		315	718,678	2,308,634						
		470	718,819	2,309,749						
		0	734,329	2,325,827						
Lelgyi(N)	Lelgyi(Ma)	12	MA2-38	1	175	734,378	2,325,660	Recommended DP		
					315	734,415	2,325,527			
					470	734,462	2,325,378			

## Location of 2 Dimensional (2D) Electric Survey at Magway Region

Region	Township	Village Tracks	Villages	No.	ID	Line No.	Station	Coordinate (WGS84 UTM)		Remarks
							No. (m)	x	y	
Magway	Chauk	Zeebwar	Zeebwar	1	MG2-12	1	0	711,578	2,299,014	Recommended DP
							275	711,799	2,299,179	
							315	711,836	2,299,204	
							470	711,959	2,299,298	
	Yenangyaung	Indaw	Legyinyo	2	MG2-19	1	0	723,913	2,266,597	Recommended DP
							315	724,163	2,266,788	
							380	724,221	2,266,827	
							630	724,418	2,266,972	
	Natmauk	Htonepoutchine	Htonepoutchine	3	MG2-28	1	0	730,842	2,255,340	Recommended DP
							210	731,018	2,255,457	
		Sellel	Sellel	4	MG2-30	1	0	782,988	2,258,915	The possibility cannot be found.
							440	783,428	2,258,888	
							0	734,840	2,268,012	
							310	735,144	2,268,061	
	Wayonegone	Wayonegone	5	MG2-33	1	630	735,455	2,268,109	Recommended DP	
						0	762,199	2,193,020		
						160	762,353	2,192,994		
						330	762,531	2,193,000		
	Taungdwingyi	Payatkyal	Kangyigone	6	MG2-37	1	470	762,566	2,193,006	Recommended DP
							0	771,970	2,184,938	
155							772,122	2,184,918		
470							772,431	2,184,874		
Warthonepyu		Htaukkyantgwin	7	MG2-38	1	-	VES	772,133	2,184,859	The possibility cannot be found on 2D electrical sounding result. Recommended DP

\*1) DP : Drilling Point

**Appendix 5.2.2 Result of the Geophysical Survey**

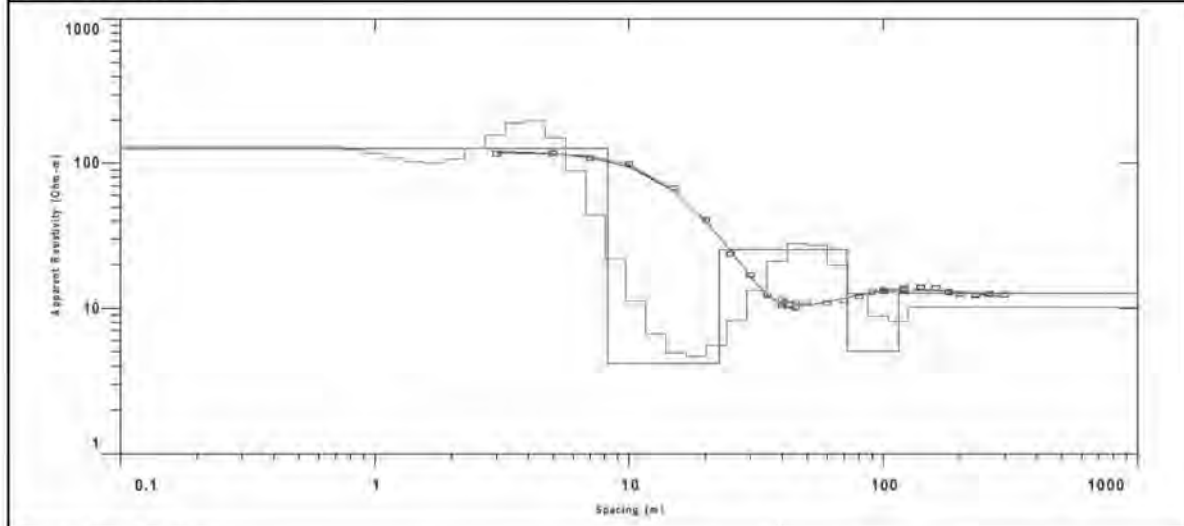
## Vertical Electric Sounding (VES) at Sagaing Region

SA2-01	Yonedaw Village
SA2-02	Nyaungbinthar Village
SA2-03	Maunghtaung Village
SA2-04	Kantawthar Village
SA2-05	Mhonehtoo Village
SA2-06	Watluu-I Village
SA2-07	Thanbinkan Village
SA2-08	Natyaygan Village
SA2-09	Sithar Village
SA2-10	Oakkan Village
SA2-11	Warryaung Village
SA2-12	Warrtannkalay Village
SA2-13	Yathar Village
SA2-14	Zeepinlel Village
SA2-15	Yonebinyoe Village
SA2-16	Minntaw Village
SA2-17	Kine Village
SA2-18	Kalarpyan Village
SA2-19	Hlayookan Village
SA2-21	Watkya Village
SA2-22	Thahtaykone(Ywarma) Village
SA2-23	Magyidaw Village
SA2-24	Thindaw Village
SA2-25	Lwingyi Village
SA2-26	Koetaungboh(Kyunkone) Village
SA2-27	Inngoteto Village
SA2-28	Myayhtoo Village
SA2-29	Khaowntar Village
SA2-30	Nyuangkanthar Village
SA2-31	Myaymon Village
SA2-32	Layytwinzin Village
SA2-33	Chaugchar Village
SA2-34	Minyogone Village
SA2-35	Shandaw Village
SA2-36	Kyuntaw (S) Village
SA2-37	PalaeThwe (Ywarthit) Village
SA2-38	Poukkan Village
SA2-39	Shwenyaungtaw Village
SA2-40	Sabeidaw Village

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

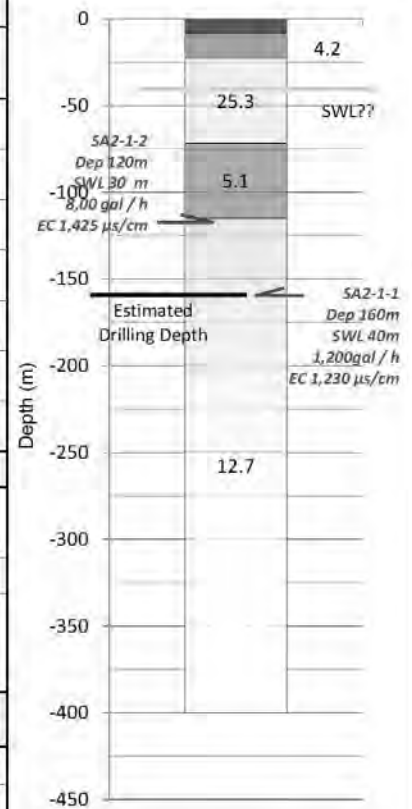
Village ID	SA2-01	Survey Date	30/05/2015
Village	Yonedaw	Coordinate	X : 721,184
Township	Budalin	(WGS 84 UTM Zone 46N)	Y : 2,468,685
Region	Sagaing	Elevation (m)	Z : 110

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	125.9	8.2	-8.2	Alluvium deposit (Sand: Unsaturated)
2nd	4.2	14.3	-22.6	Irrawaddy formation (Clay)
3rd	25.3	49.1	-71.7	Irrawaddy formation (Sand : Unsaturated)
4th	5.1	43.2	-114.9	Irrawaddy formation (Clay)
5th	12.7			Irrawaddy formation (Sand - Silt : Saturated)
6th				
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand - Silt (lr)	Estimated SWL( GL-m)	40m (Confined?)
	Depth (m)	>115m	Remarks:	
	Thickness (m)	>45m		
	Resistivity (Ω-m)	12.7		

Results of Evaluation

Estimated Drilling Depth(m)	160 m	Possibility / Priority	C : Low-Medium Priority 5
-----------------------------	-------	------------------------	---------------------------

Remarks

Drilling depth is decided by information of existing tube well.

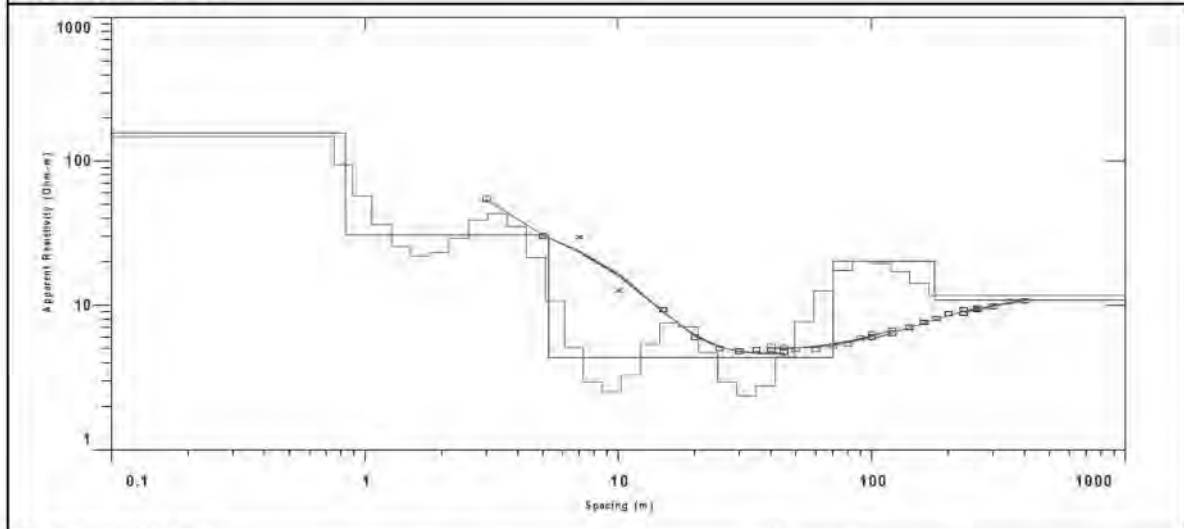
LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

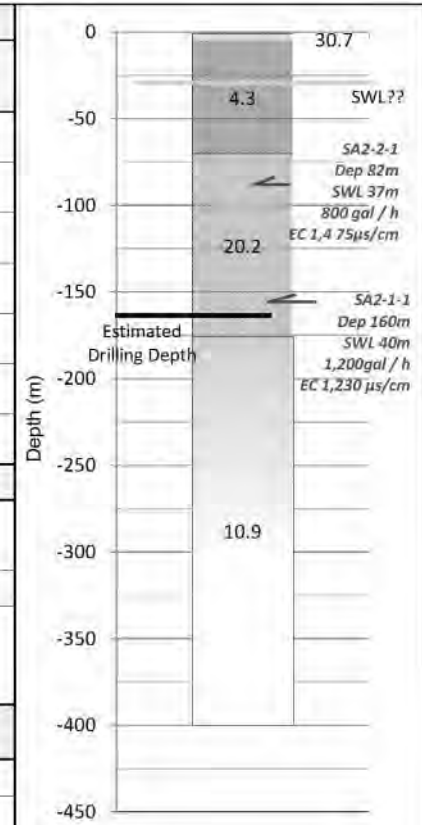
Village ID	SA2-02	Survey Date	01/06/2015
Village	Nyaungbinthar	Coordinate	X : 720,885
Township	Budalin	(WGS 84 UTM Zone 46N)	Y : 2,486,381
Region	Sagaing	Elevation (m)	Z : 108

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	157.2	0.8	-0.8	Top Soil
2nd	30.7	4.4	-5.3	Alluvium deposit (Silt: Unsaturated)
3rd	4.3	65.1	-70.3	Irrawaddy formation (Clay)
4th	20.2	105.5	-175.9	Irrawaddy formation (Sand : Saturated)
5th	10.9			Irrawaddy formation (Silt : Saturated)
6th				
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand (lr)	Estimated SWL( GL-m)	40m (Confined?)
	Depth (m)	70.3-176m	Remarks:	
	Thickness (m)	>90m		
	Resistivity (Ω-m)	20.2		

Results of Evaluation

Estimated Drilling Depth(m)	160 m	Possibility / Priority	A : High Priority 3
-----------------------------	-------	------------------------	---------------------

Remarks  
Drilling depth is decided by existing tube well which is located near the site.

LEGEND

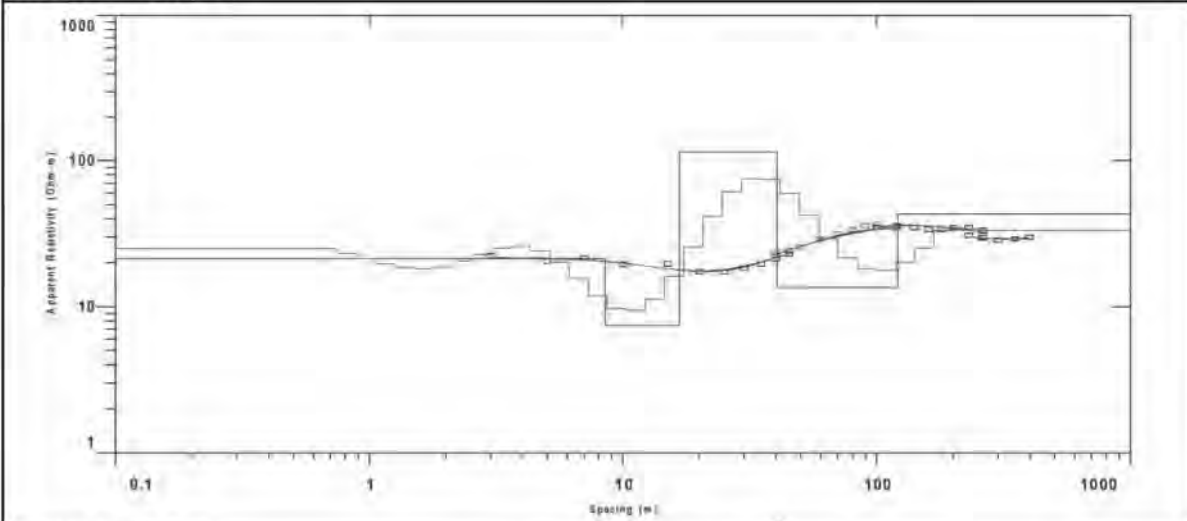
~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m



Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

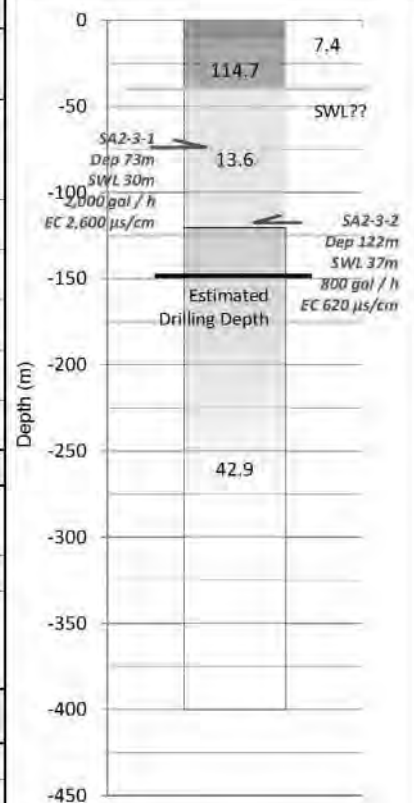
Village ID	SA2-03	Survey Date	01/06/2015
Village	Maunghtaung	Coordinate	X : 712,894
Township	Budalin	(WGS 84 UTM Zone 46N)	Y : 2,487,822
Region	Sagaing	Elevation (m)	Z : 121

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	21.4	8.5	-8.5	Top soil / Alluvium deposit (Silt-Sand)
2nd	7.4	8.2	-16.7	
3rd	114.7	23.8	-40.5	Irrawaddy formation (Sand with Gravel)
4th	13.6	80.0	-120.5	Irrawaddy formation (Silt : Saturated)
5th	42.9			Irrawaddy formation (Sand: Saturated)
6th				
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand (lr)	Estimated SWL( GL-m)	40 m
	Depth (m)	>120m	Remarks:	
	Thickness (m)	>30m		
	Resistivity (Ω-m)	42.9		

Results of Evaluation

Estimated Drilling Depth(m)	150 m	Possibility / Priority	B : Medium Priority 4
-----------------------------	-------	------------------------	-----------------------

Remarks

It is estimated that potential of upper aquifer(40.5-120.5m) is low, and water quality has little problem. (Salty)  
 From these reasons, target aquifer has been set to more deeper part.

LEGEND

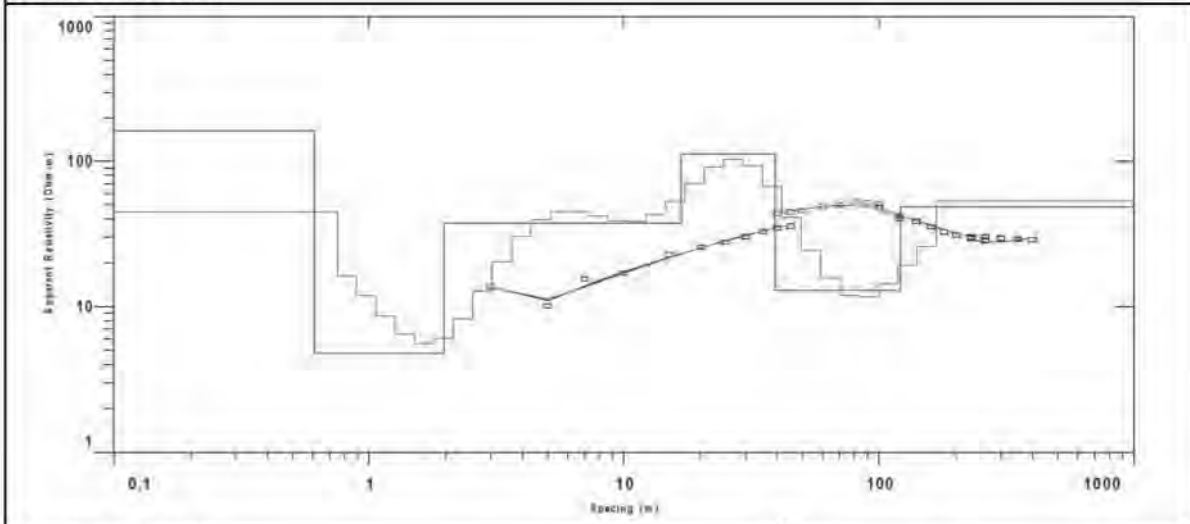
~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m



### Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

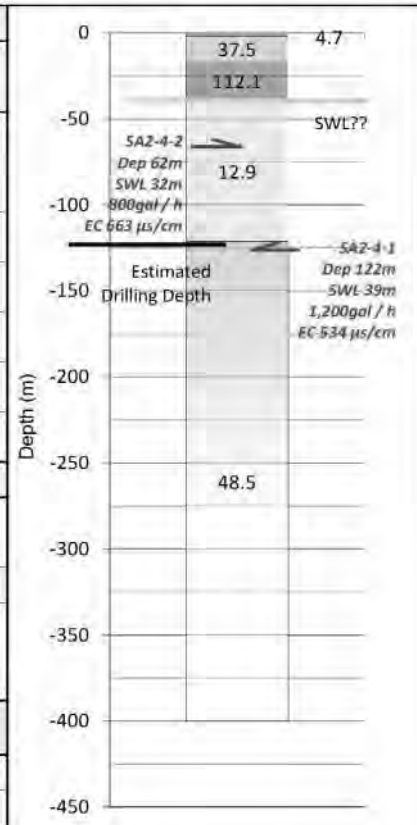
Village ID	SA2-04	Survey Date	31/05/2015
Village	Kantawthar	Coordinate	X : 704,295
Township	Budalin	(WGS 84 UTM Zone 46N)	Y : 2,487,734
Region	Sagaing	Elevation (m)	Z : 157

#### Result of Inversion



#### Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	163.0	0.6	-0.6	Top Soil
2nd	4.7	1.3	-2.0	
3rd	37.5	14.8	-16.8	Irrawaddy formation (Sand-Silt Unsaturated)
4th	112.1	22.4	-39.2	Irrawaddy formation (Sand with Gravel)
5th	12.9	82.3	-121.4	Irrawaddy formation (Sand :Saturated)
6th	48.5			Irrawaddy formation (Coarse Sand? :Saturated)
7th				



#### Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand (Ir)	Estimated SWL( GL-m)	39 m
	Depth (m)	>39m	Remarks:	
	Thickness (m)	>85m		
	Resistivity (Ω-m)	12.9 - 48.5		

#### Results of Evaluation

Estimated Drilling Depth(m)	125 m	Possibility / Priority	C : Low-Medium Priority 5
-----------------------------	-------	------------------------	---------------------------

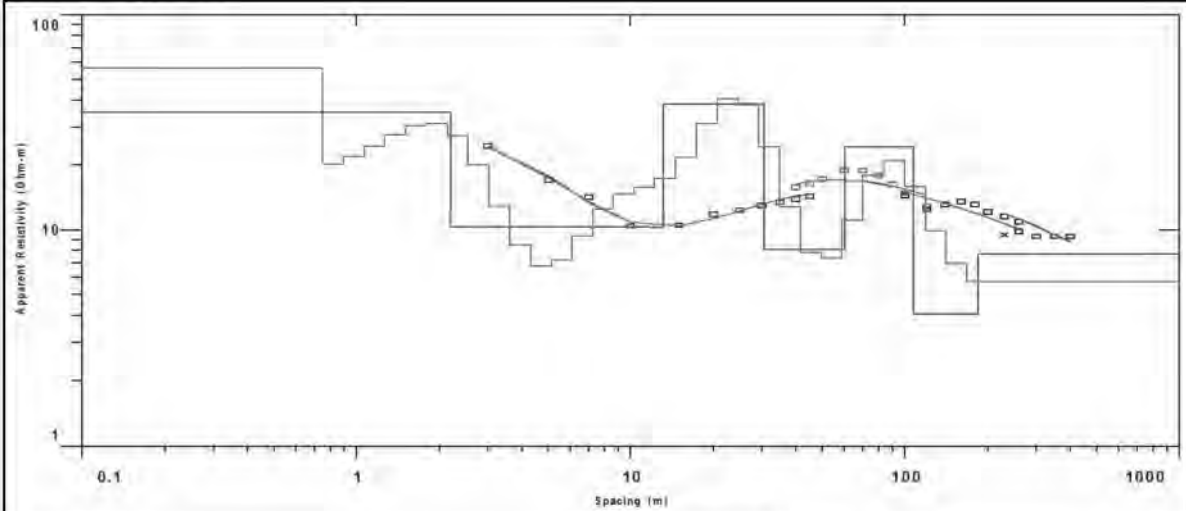
Remarks  
Drilling depth is decided by information of existing tube well.

LEGEND			
~ 5Ω-m	~ 30Ω-m	~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m	~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

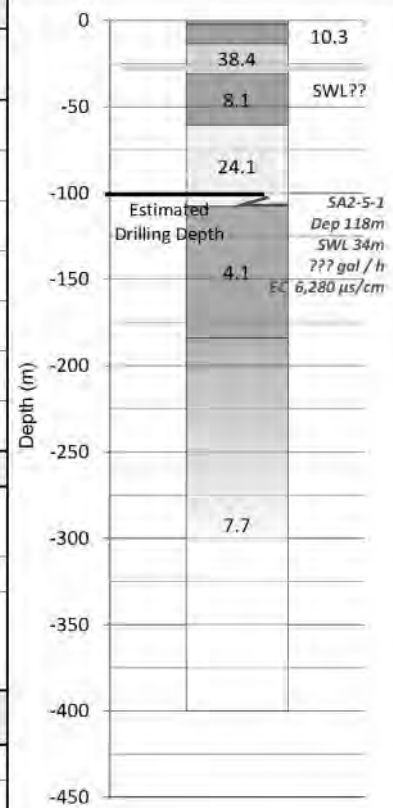
Village ID	SA2-05	Survey Date	01/06/2015
Village	Mhonehtoo	Coordinate	X : 729,874
Township	Budalin	(WGS 84 UTM Zone 46N)	Y : 2,471,014
Region	Sagaing	Elevation (m)	Z : 108

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	35.3	2.2	-2.2	Top Soil
2nd	10.3	11.0	-13.2	Pegu group (Mudstone)
3rd	38.4	17.5	-30.7	Pegu group (Mud-Siltstone)
4th	8.1	29.9	-60.6	Pegu group (Mudstone)
5th	24.1	47.0	-107.5	Pegu group (Sandstone)
6th	4.1	76.5	-184.0	Pegu group (Mudstone)
7th	7.7			Pegu group (Mudstone)



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand (lr)	Estimated SWL (GL-m)	30 m
	Depth (m)	60 - 108	Remarks:	
	Thickness (m)	>50m		
	Resistivity (Ω-m)	24.1		

Results of Evaluation

Estimated Drilling Depth(m)	100 m	Possibility / Priority	A : High Priority 3
-----------------------------	-------	------------------------	---------------------

Remarks

Drilling depth is decided by information of existing tube well.  
There is the possibility that the water quality worsens at 100m or lower.

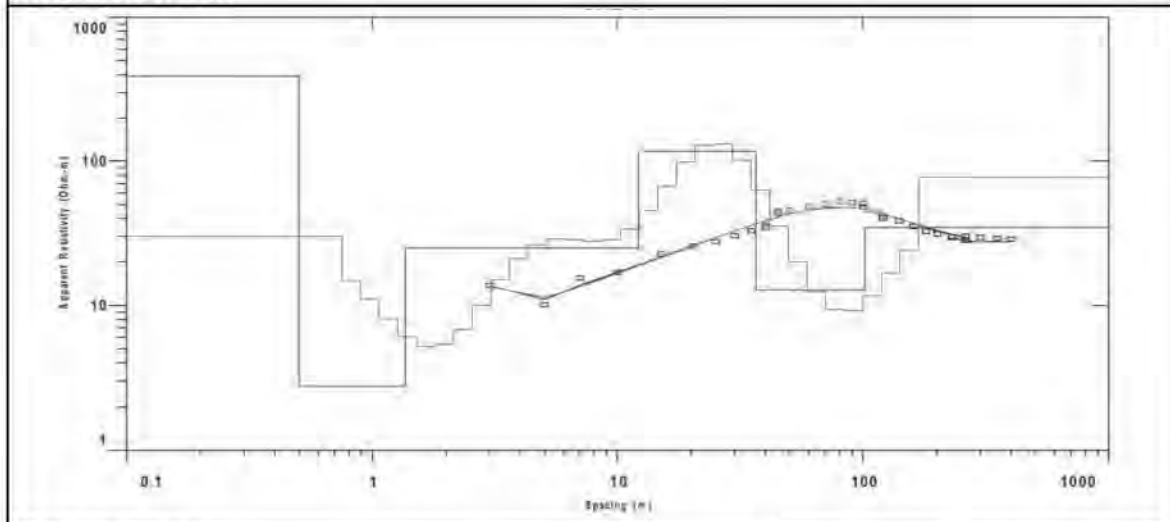
LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

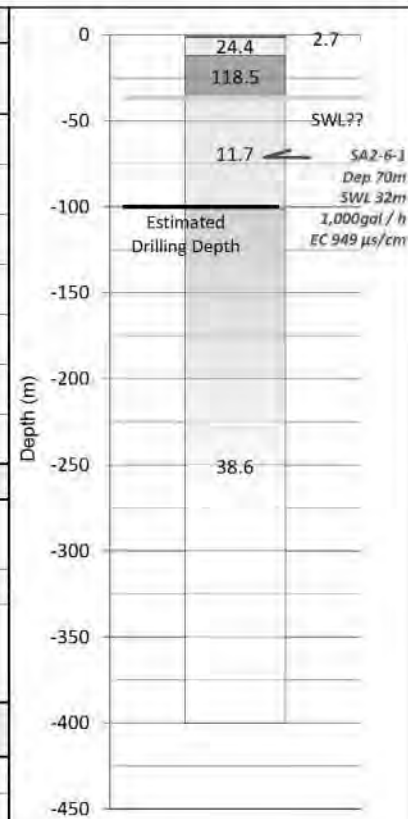
Village ID	SA2-06	Survey Date	31/05/2015
Village	Watluu-I	Coordinate	X : 700,719
Township	Budalin	(WGS 84 UTM Zone 46N)	Y : 2,482,574
Region	Sagaing	Elevation (m)	Z : 114

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	408.5	0.5	-0.5	Top soil
2nd	2.7	0.8	-1.3	Top soil
3rd	24.4	10.6	-11.9	Irrawaddy formation (Sand : Unsaturated)
4th	118.5	24.5	-36.4	Irrawaddy formation (Sand with Gravel)
5th	11.7	64.7	-101.0	Irrawaddy formation (Sand - Silt : Saturated)
6th	38.6			Irrawaddy formation (Sand : Saturated)
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand - Silt (lr)	Estimated SWL (GL-m)	36 m
	Depth (m)	36 - 101m	Remarks:	
	Thickness (m)	>65m		
	Resistivity (Ω-m)	11.7		

Results of Evaluation

Estimated Drilling Depth(m)	100 m	Possibility / Priority	C : Low-Medium Priority 5
-----------------------------	-------	------------------------	---------------------------

Remarks

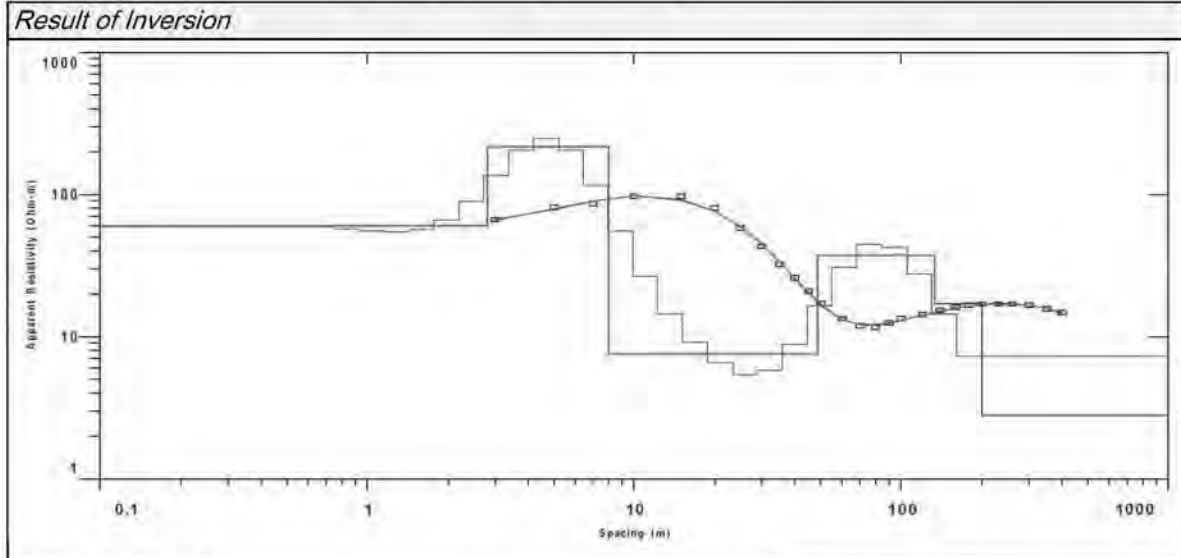
From resistivity value of target aquifer, it is expected that capacity of target aquifers is low. Therefore, it is recommended that drilling depth is set to deep part as possible.

LEGEND

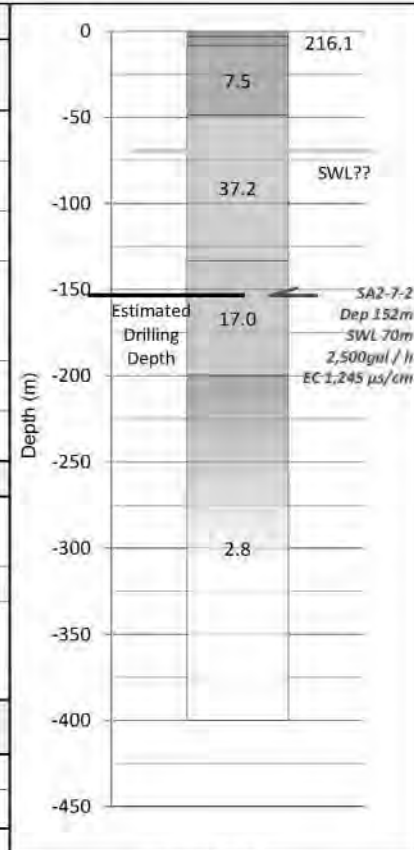
~ 50-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 150-m	~ 100Ω-m
~ 200-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

Village ID	SA2-07	Survey Date	23/06/2015
Village	Thanbinkan	Coordinate	X: 742,454
Township	Chaungoo	(WGS 84 UTM Zone 46N)	Y: 2,430,400
Region	Sagaing	Elevation (m)	Z: 171



Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	59.8	2.8	-2.8	Top Soil
2nd	216.1	5.2	-8.0	Irrawaddy formation (Sand with Gravel)
3rd	7.5	40.8	-48.8	Irrawaddy formation (Clay)
4th	37.2	84.5	-133.2	Irrawaddy formation (Sand : Saturated)
5th	17.0	66.5	-199.8	
6th	2.8			Irrawaddy formation (Clay)
7th				



Target Aquifer	Lithology	Sand (Ir)	Estimated SWL( GL-m)	70 m
	Depth (m)	49 - 200	Remarks:	
	Thickness (m)	>100m		
	Resistivity (Ω-m)	37.2-17		

Estimated Drilling Depth(m)	150 m	Possibility / Priority	A : High Priority 3
-----------------------------	-------	------------------------	---------------------

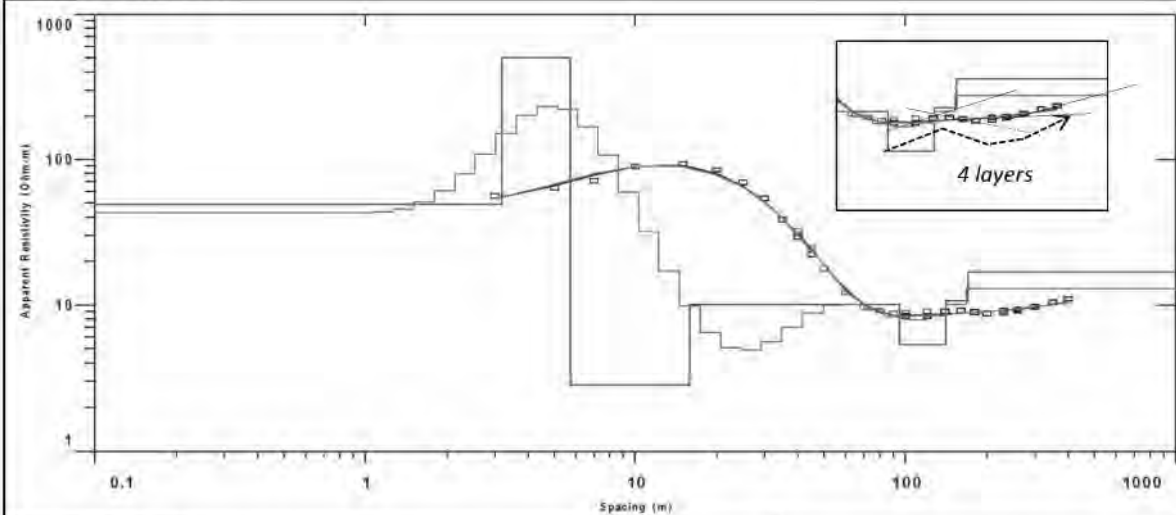
Remarks  
Drilling depth is decided by information of existing tube well.

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

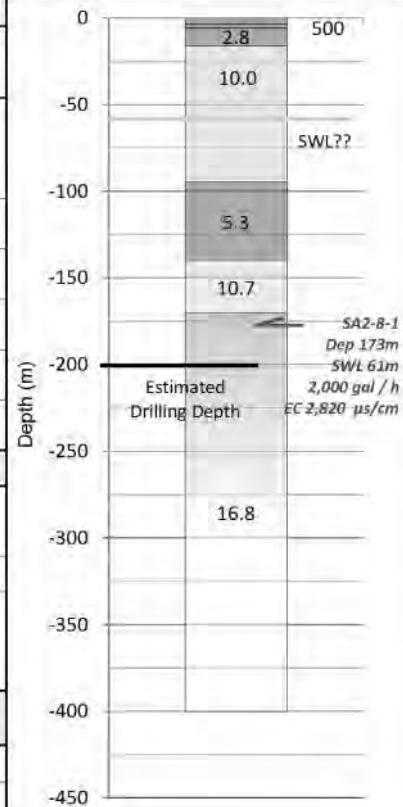
Village ID	SA2-08	Survey Date	24/06/2015
Village	Natyaygan	Coordinate	X : 743,821
Township	Chaungoo	(WGS 84 UTM Zone 46N)	Y : 2,426,594
Region	Sagaing	Elevation (m)	Z : 144

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	49.0	3.2	-3.2	Top Soil
2nd	500.0	2.5	-5.7	
3rd	2.8	10.2	-15.9	Irrawaddy formation (Clay)
4th	10.0	78.9	-94.8	Irrawaddy formation (Silt)
5th	5.3	45.5	-140.4	Irrawaddy formation (Clay)
6th	10.7	30.0	-170.4	Irrawaddy formation (Silt)
7th	16.8			Irrawaddy formation (Sand : Saturated)



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand (Ir)	Estimated SWL( GL-m)	61 m
	Depth (m)	>170m	Remarks:	
	Thickness (m)	>30m		
	Resistivity (Ω-m)	16.8		

Results of Evaluation

Estimated Drilling Depth(m)	200 m	Possibility / Priority	B : Medium Priority 3
-----------------------------	-------	------------------------	-----------------------

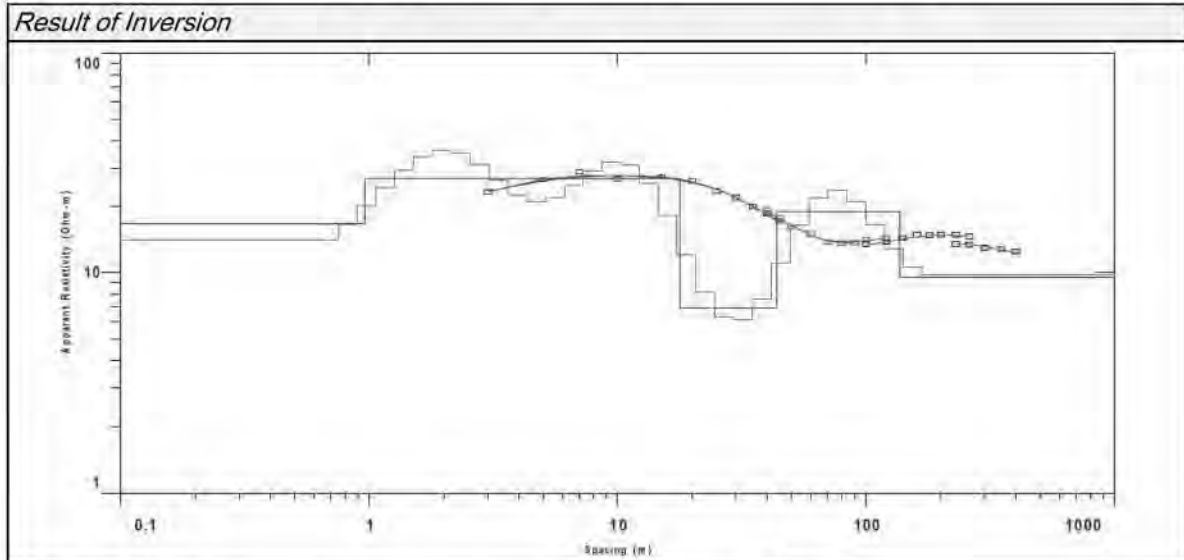
Remarks

LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

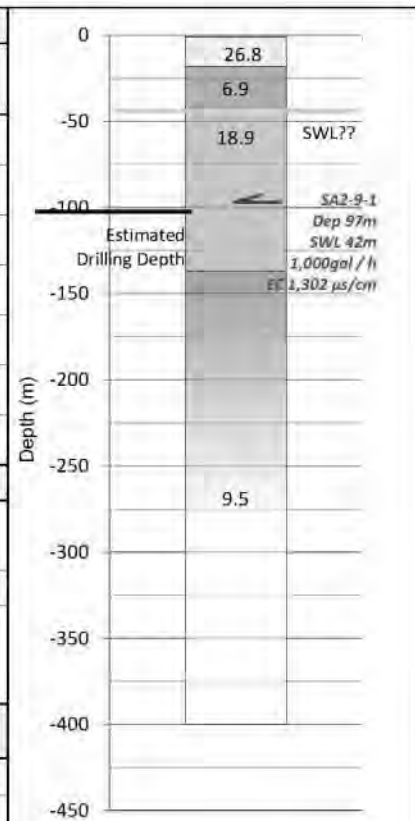
Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

Village ID	SA2-09	Survey Date	05/06/2015
Village	Sithar	Coordinate	X : 742,840
Township	Ayadaw	(WGS 84 UTM Zone 46N)	Y : 2,472,680
Region	Sagaing	Elevation (m)	Z : 220



**Resistivity Model**

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	16.8	1.0	-1.0	Top Soil
2nd	26.8	16.9	-17.8	Irrawaddy formation (Sand - Silt : Unsaturated)
3rd	6.9	25.9	-43.8	Irrawaddy formation (Clay)
4th	18.9	93.0	-136.8	Irrawaddy formation (Sand : Saturated)
5th	9.5			Irrawaddy formation (Silt : Saturated)
6th				
7th				



**Estimation Results of Hydrogeological Information**

Target Aquifer	Lithology	Sand (lr)	Estimated SWL (GL-m)	44 m
	Depth (m)	44-137m	Remarks:	
	Thickness (m)	>55m		
	Resistivity (Ω-m)	18.9		
<b>Results of Evaluation</b>				
Estimated Drilling Depth(m)	100 m	Possibility / Priority	A : High Priority 3	

Remarks  
Drilling depth is decided by information of existing tube well.

**LEGEND**

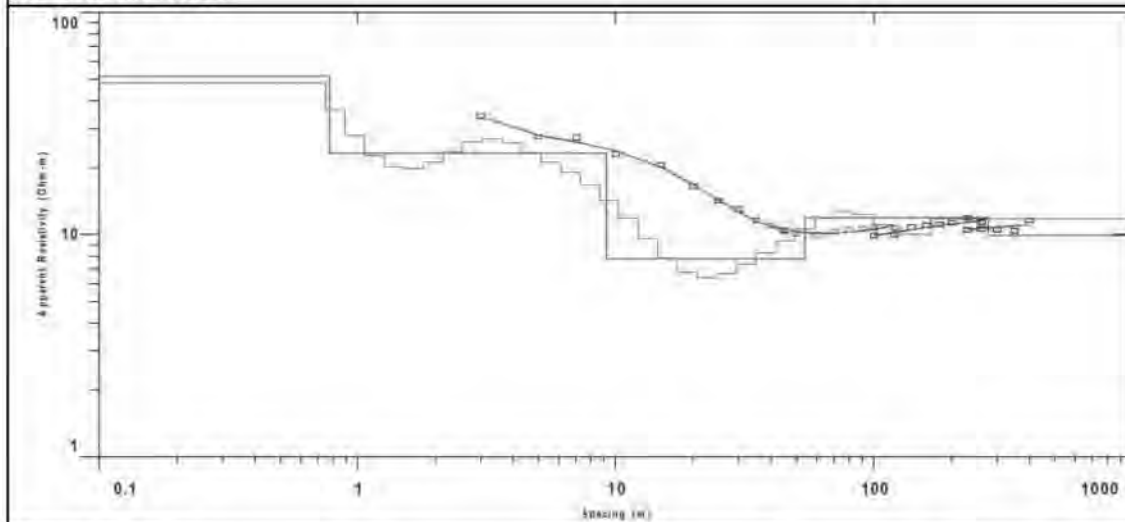
~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m



Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

Village ID	SA2-10	Survey Date	04/06/2015
Village	Oakkan	Coordinate	X : 747,838
Township	Ayadaw	(WGS 84 UTM Zone 46N)	Y : 2,482,552
Region	Sagaing	Elevation (m)	Z : 138

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	51.4	0.8	-0.8	Top Soil
2nd	23.2	8.4	-9.2	Alluvium deposit (Silt : Unsaturated)
3rd	7.8	44.7	-53.9	Alluvium / Irrawaddy F (Silt : Unsaturated)
4th	11.9	223.2	-277.2	Irrawady formation (Attenuation of Clay and Sand?)
5th	9.9			Irrawady formation (Clay?)
6th				
7th				

Estimation Results of Hydrogeological Information

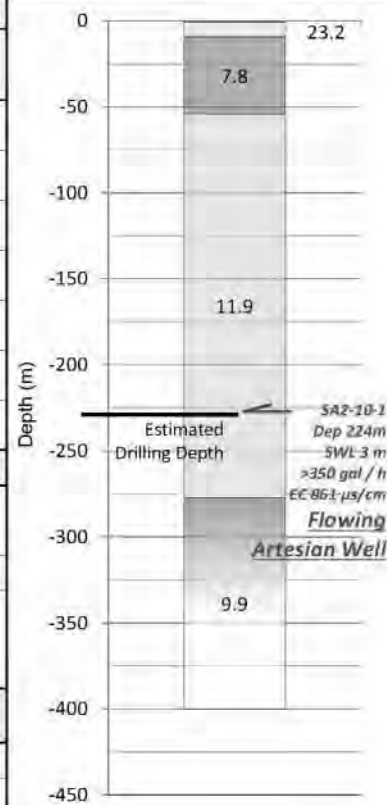
Target Aquifer	Lithology	Attenuation of Clay and Sand? (lr)	Estimated SWL( GL-m)	3m (Confined)
	Depth (m)	54 - 277 m	Remarks:	
	Thickness (m)	?		
	Resistivity (Ω-m)	11.9		

Results of Evaluation

Estimated Drilling Depth(m)	230 m	Possibility / Priority	C : Low-Medium Priority 4
-----------------------------	-------	------------------------	---------------------------

Remarks

Drilling depth is decided by information of existing tube well.



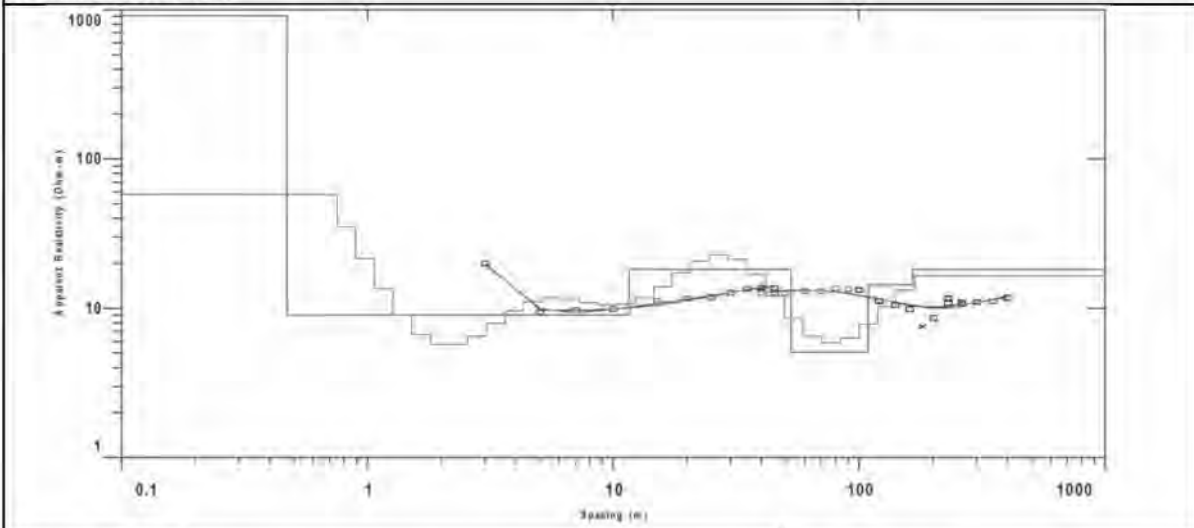
LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

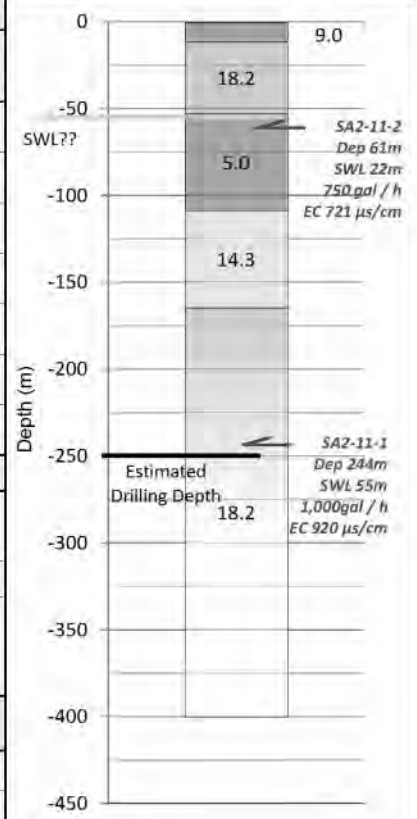
Village ID	SA2-11	Survey Date	03/06/2015
Village	Warryaung	Coordinate	X : 748,170
Township	Ayadaw	(WGS 84 UTM Zone 46N)	Y : 2,458,383
Region	Sagaing	Elevation (m)	Z : 220

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	910.7	0.5	-0.5	Top Soil
2nd	9.0	11.1	-11.6	Irrawaddy formation (Clay-Silt)
3rd	18.2	41.2	-52.8	Irrawaddy formation (Sand : Saturated)
4th	5.0	56.0	-108.8	Irrawaddy formation (Clay)
5th	14.3	55.8	-164.6	Irrawaddy formation (Sand - Silt : Saturated)
6th	18.2			Irrawaddy formation (Sand : Saturated)
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand (Ir)	Estimated SWL( GL-m)	55m (Confined)
	Depth (m)	>165m	Remarks:	
	Thickness (m)	>85m		
	Resistivity (Ω-m)	18.2		

Results of Evaluation

Estimated Drilling Depth(m)	250 m	Possibility / Priority	A : High Priority 2
-----------------------------	-------	------------------------	---------------------

Remarks

Drilling depth is decided by information of existing tube well.

LEGEND

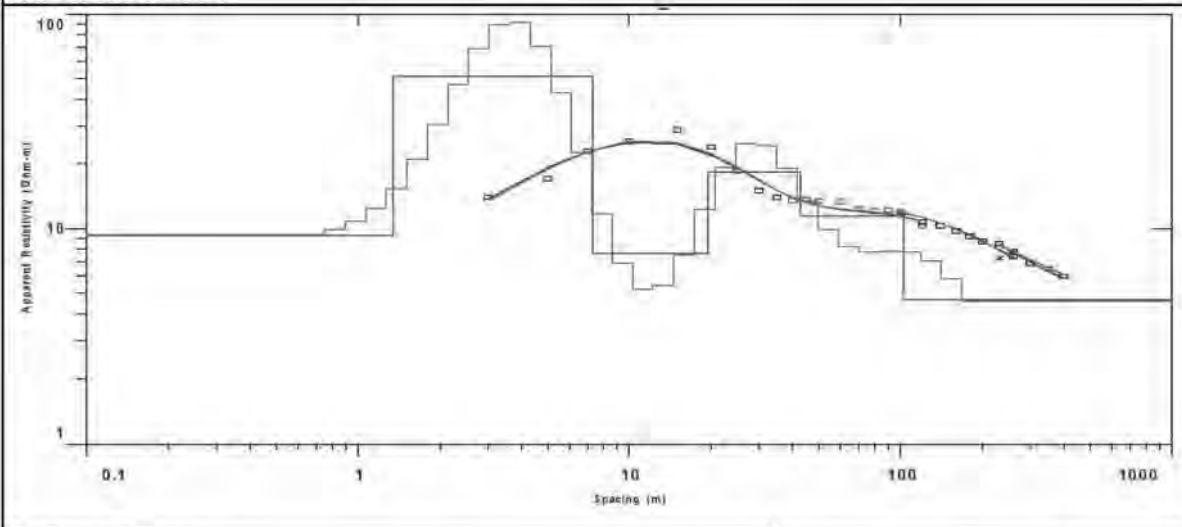
~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m



Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

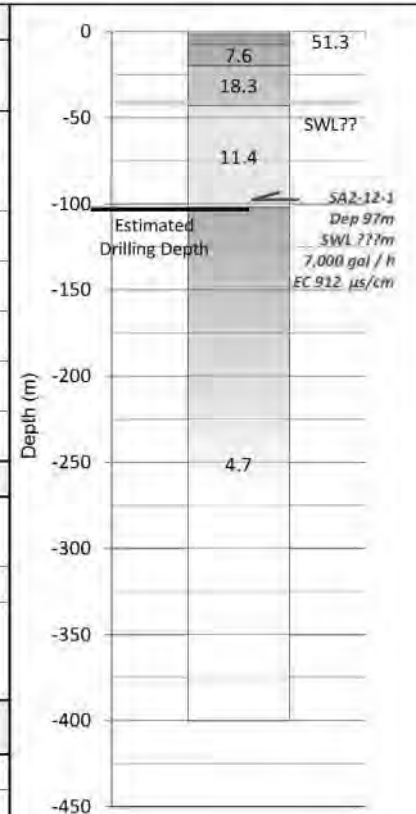
Village ID	SA2-12	Survey Date	04/06/2015
Village	Warrtannkalay	Coordinate	X : 750,823
Township	Ayadaw	(WGS 84 UTM Zone 46N)	Y : 2,470,044
Region	Sagaing	Elevation (m)	Z : 170

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	9.3	1.3	-1.3	Top Soil / Irrawaddy F
2nd	51.3	6.0	-7.3	
3rd	7.6	12.2	-19.5	Irrawaddy formation (Clay - Silt)
4th	18.3	23.3	-42.8	Irrawaddy formation (Sand : Semi Saturated)
5th	11.4	59.3	-102.1	Irrawaddy formation (Sand : Saturated)
6th	4.7			Irrawaddy formation (Clay)
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand (Ir)	Estimated SWL( GL-m)	43 m
	Depth (m)	43-102m	Remarks:	
	Thickness (m)	62m		
	Resistivity (Ω-m)	11.4		

Results of Evaluation

Estimated Drilling Depth(m)	105 m	Possibility / Priority	C : Low-Medium Priority 5
-----------------------------	-------	------------------------	---------------------------

Remarks

Drilling depth is decided by information of existing tube well.

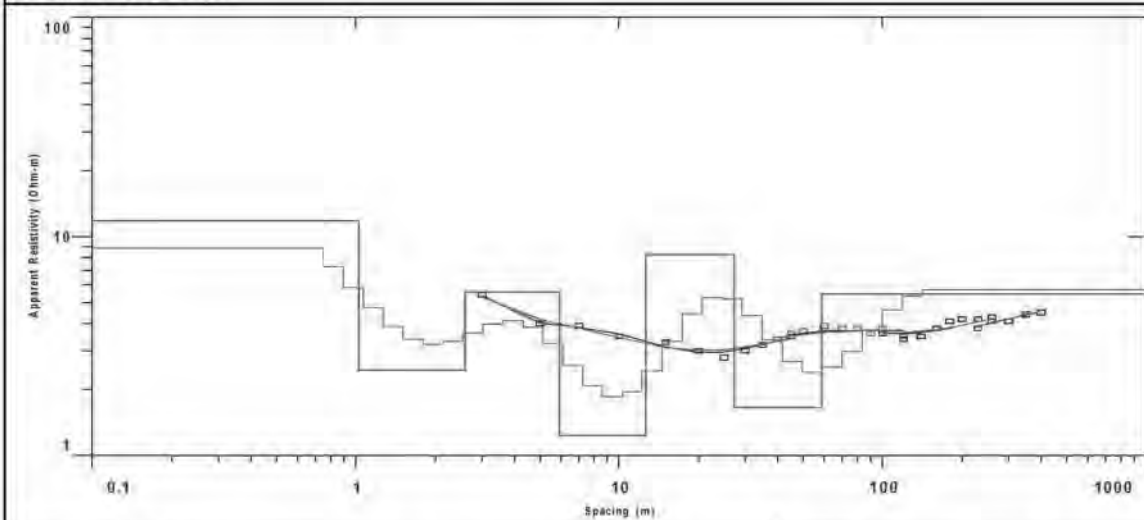
LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

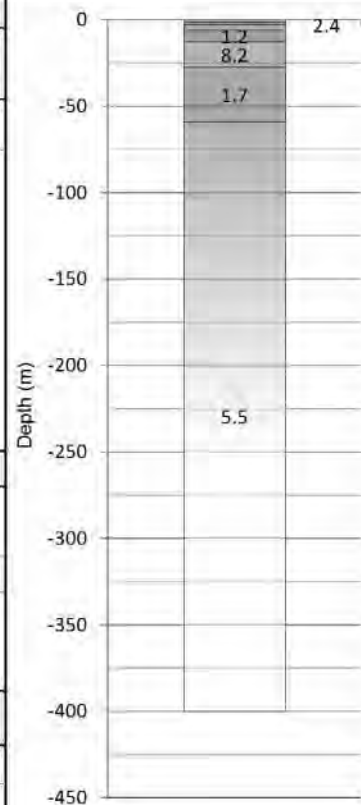
Village ID	SA2-13	Survey Date	03/06/2015
Village	Yathar	Coordinate	X : 766,166
Township	Ayadaw	(WGS 84 UTM Zone 46N)	Y : 2,449,638
Region	Sagaing	Elevation (m)	Z : 212

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	11.8	1.0	-1.0	Top Soil
2nd	2.4	1.6	-2.6	Alluvium deposit /Irrawaddy formation (Clay-Silt)
3rd	5.6	3.3	-5.9	
4th	1.2	6.7	-12.7	
5th	8.2	14.7	-27.4	
6th	1.7	31.6	-58.9	
7th	5.5			



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Estimated SWL( GL-m)	Remarks
	Depth (m)		
	Thickness (m)		
	Resistivity (Ω-m)		

Results of Evaluation

Estimated Drilling Depth(m)	Possibility / Priority	D : No possibility
-		

Remarks

Resistivity value indicates less than 10 Ohm-m up to deep part. It suggests existence of clay or the aquifer that has bad water quality. Therefore, recommended drilling point is not decided.

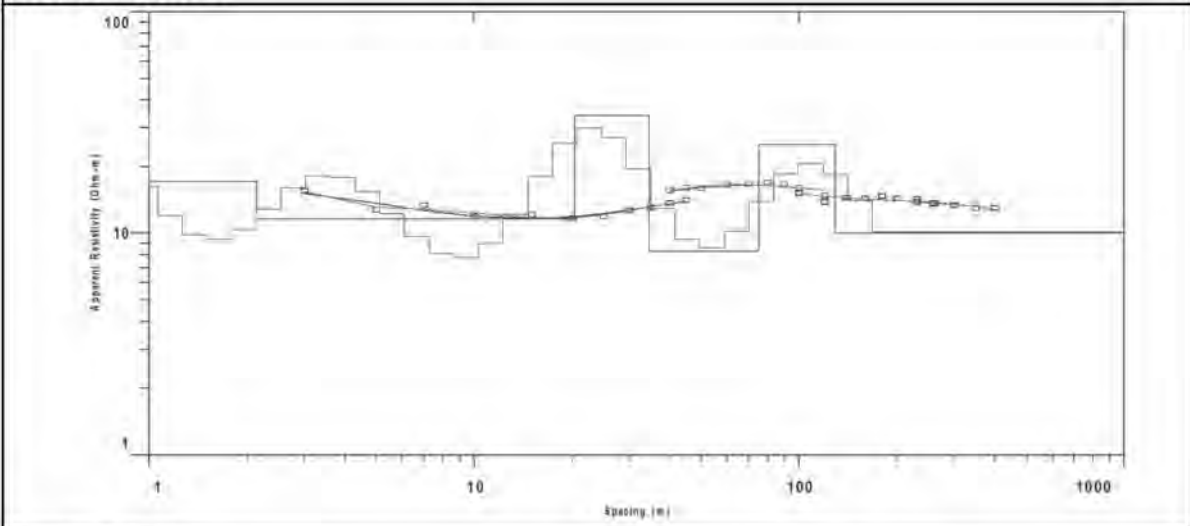
LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

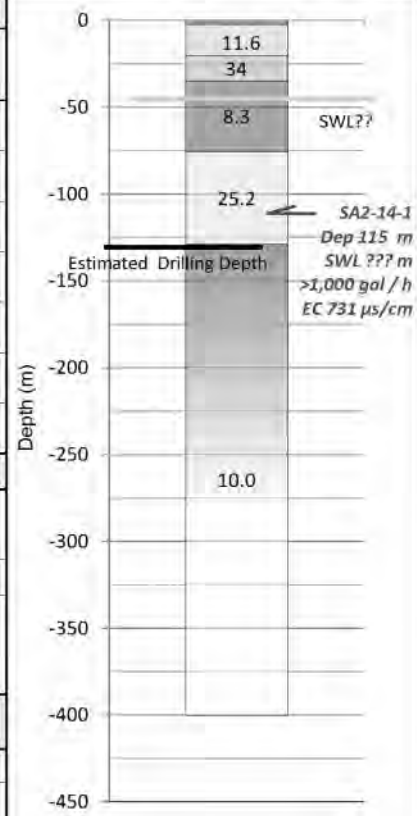
Village ID	SA2-14	Survey Date	03/06/2015
Village	Zeepinlel	Coordinate	X : 751,516
Township	Ayadaw	(WGS 84 UTM Zone 46N)	Y : 2,457,534
Region	Sagaing	Elevation (m)	Z : 212

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	17.2	2.1	-2.1	Top Soil
2nd	11.6	18.2	-20.3	Irrawaddy formation (Clay - Silt)
3rd	34.0	14.3	-34.6	Irrawaddy formation (Sand -Silt : Unsaturated)
4th	8.3	40.7	-75.3	Irrawaddy formation (Clay)
5th	25.2	53.7	-129.0	Irrawaddy formation (Sand : Saturated)
6th	10.0			Irrawaddy formation (Silt)
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand (Ir)	Estimated SWL( GL-m)	50 m ?
	Depth (m)	75-129m	Remarks:	
	Thickness (m)	55m		
	Resistivity (Ω-m)	25.2		

Results of Evaluation

Estimated Drilling Depth(m)	130 m	Possibility / Priority	C : Low-Medium Priority 5
-----------------------------	-------	------------------------	---------------------------

Remarks

From existing borehole, it is expected that capacity of target aquifers is low. Therefore, it is recommended that drilling depth is set to deep part as possible.

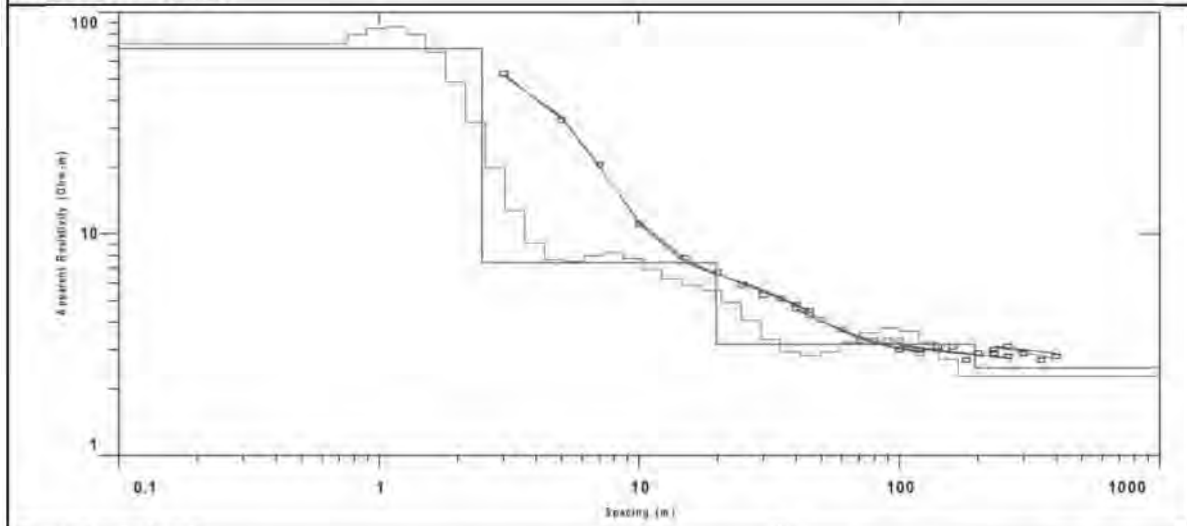
LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

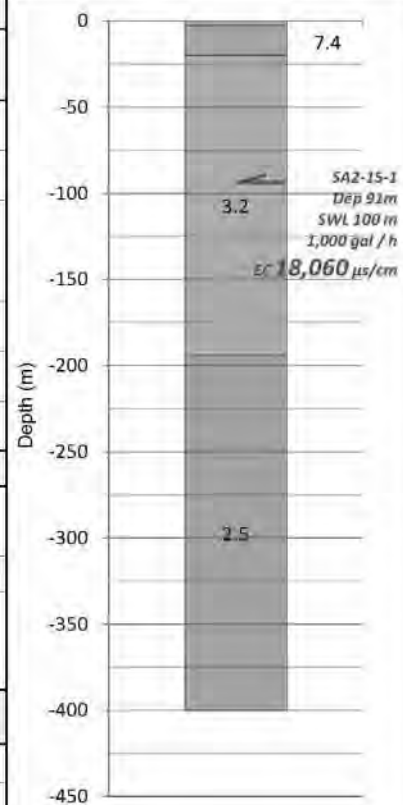
Village ID	SA2-15	Survey Date	30/05/2015
Village	Yonebinyoe	Coordinate	X : 711,426
Township	Salingyi	(WGS 84 UTM Zone 46N)	Y : 2,428,068
Region	Sagaing	Elevation (m)	Z : 131

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	68.6	2.5	-2.5	Top Soil
2nd	7.4	17.2	-19.7	Irrawaddy formation (Silt)
3rd	3.2	174.5	-194.2	Irrawaddy formation (Sand : Aquifer)
4th	2.5			(Not suitable for drinking)
5th				
6th				
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	-	Estimated SWL( GL-m)
	Depth (m)	-	Remarks:
	Thickness (m)	-	
	Resistivity (Ω-m)	-	

Results of Evaluation

Estimated Drilling Depth(m)	-	Possibility / Priority	D : No possibility
-----------------------------	---	------------------------	--------------------

Remarks

Resistivity value indicates less than 10 Ohm-m up to deep part. It suggests existence of clay or the aquifer that has bad water quality. Therefore, recommended drilling point is not decided.

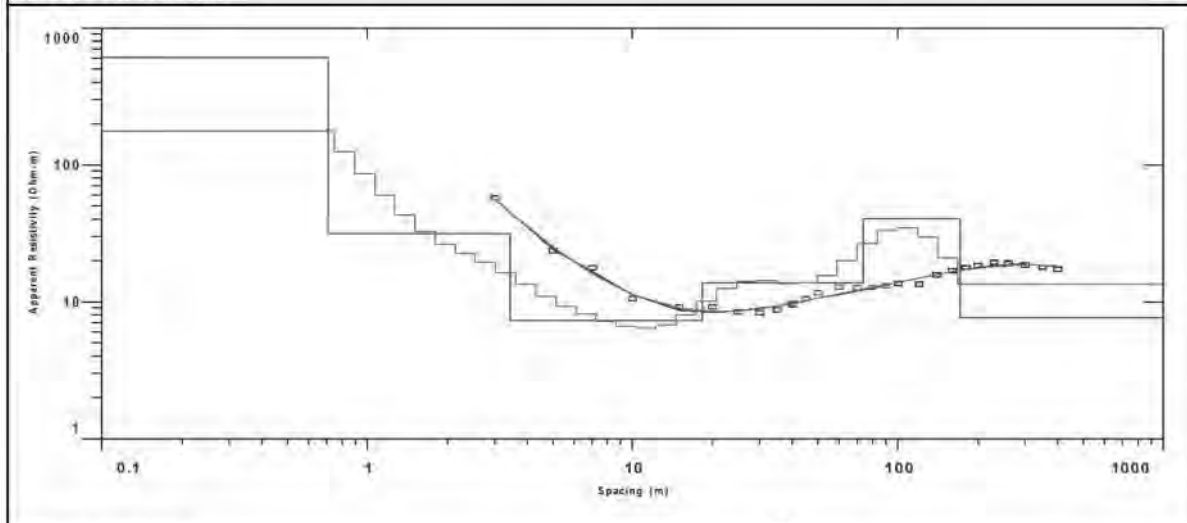
LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

### Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

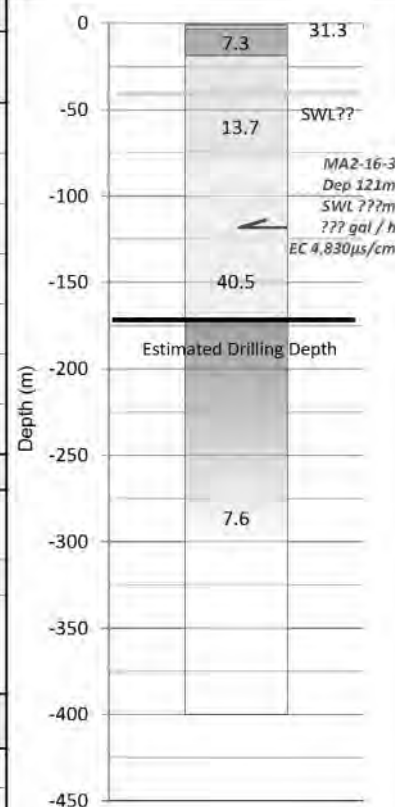
Village ID	SA2-16	Survey Date	30/05/2015
Village	Minntaw	Coordinate	X : 712,670
Township	Salingyi	(WGS 84 UTM Zone 46N)	Y : 2,428,751
Region	Sagaing	Elevation (m)	Z : 142

**Result of Inversion**



**Resistivity Model**

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	605.8	0.7	-0.7	Top Soil
2nd	31.3	2.7	-3.4	Alluvium deposit (Sand)
3rd	7.3	15.0	-18.4	Alluvium deposit (Clay)
4th	13.7	55.5	-73.8	Irrawaddy formation (Silt : Saturated?)
5th	40.5	98.1	-171.9	Irrawaddy formation (Sand : Saturated)
6th	7.6			Irrawaddy formation (Clay)
7th				



**Estimation Results of Hydrogeological Information**

Target Aquifer	Lithology	Sand (Ir)	Estimated SWL( GL-m)	40m ?
	Depth (m)	74-172m	Remarks:	
	Thickness (m)	>95m		
	Resistivity (Ω-m)	40.5		

**Results of Evaluation**

Estimated Drilling Depth(m)	170 m	Possibility / Priority	B : Medium Priority 4
-----------------------------	-------	------------------------	-----------------------

**Remarks**

It is assumed that water quality is not suitable for drinking at the shallow part of target aquifer.  
Therefore, It is recommended that drilling depth is set to deep part as possible.

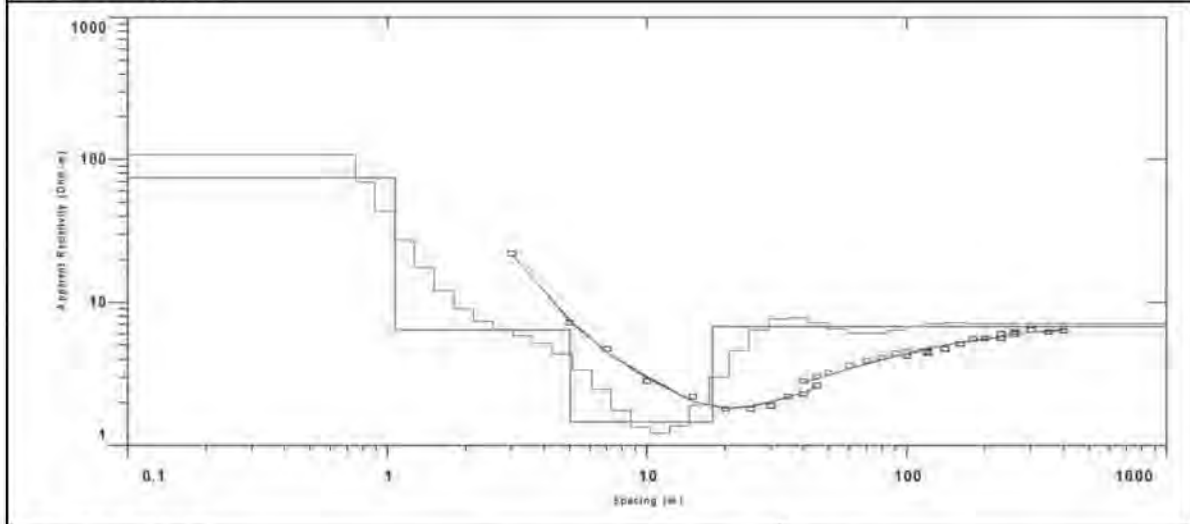
**LEGEND**

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

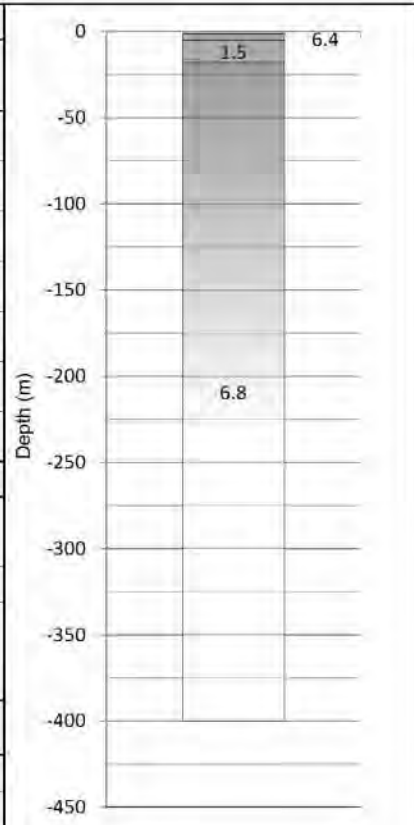
Village ID	SA2-17	Survey Date	29/05/2015
Village	Kine	Coordinate	X : 711,640
Township	Salingyi	(WGS 84 UTM Zone 46N)	Y : 2,437,561
Region	Sagaing	Elevation (m)	Z : 151

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	74.3	1.1	-1.1	
2nd	6.4	4.0	-5.0	
3rd	1.5	12.8	-17.8	
4th	6.8			
5th				
6th				
7th				



Estimation Results of Hydrogeological Information

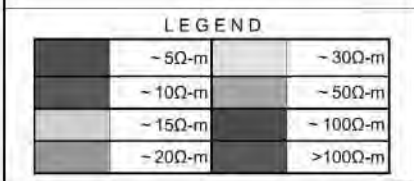
Target Aquifer	Lithology	Estimated SWL( GL-m)
	Depth (m)	Remarks:
	Thickness (m)	
	Resistivity (Ω-m)	

Results of Evaluation

Estimated Drilling Depth(m)	Possibility / Priority	D : No possibility
-----------------------------	------------------------	--------------------

Remarks

Resistivity value indicates less than 10 Ohm-m up to deep part. It suggests existence of clay or the aquifer that has bad water quality. Therefore, recommended drilling point is not decided. Refer to 2D result for more information.

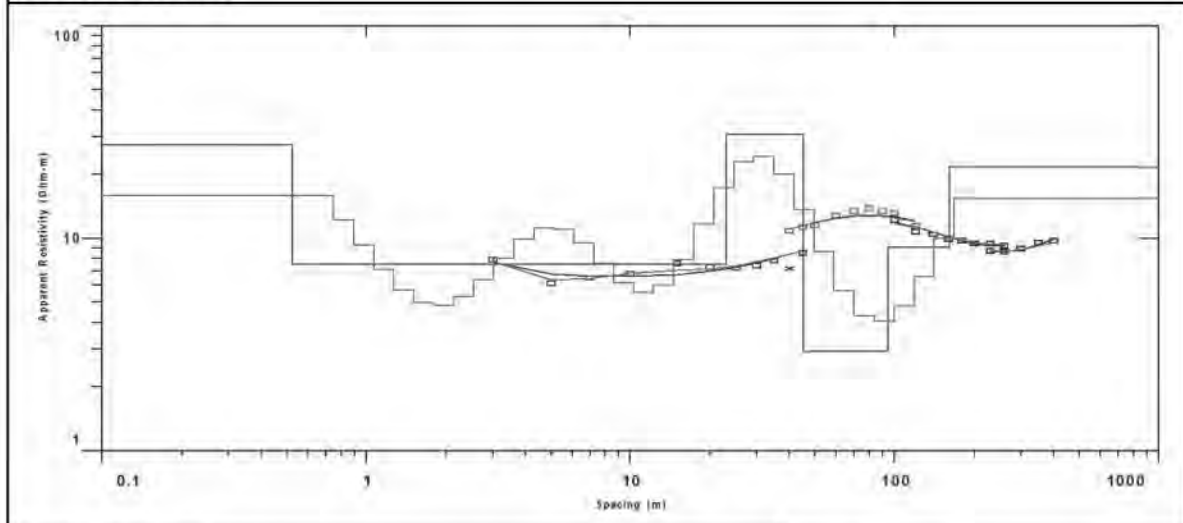




Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

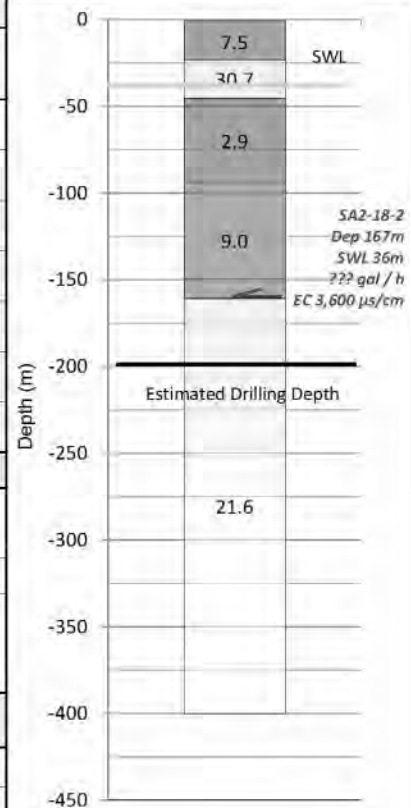
Village ID	SA2-18	Survey Date	08/06/2015
Village	Kalarpyan	Coordinate	X : 749,957
Township	Myinmu	(WGS 84 UTM Zone 46N)	Y : 2,422,670
Region	Sagaing	Elevation (m)	Z : 89

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	27.5	0.5	-0.5	Top Soil
2nd	7.5	22.5	-23.1	Irrawaddy formation (Clay)
3rd	30.7	22.2	-45.3	Irrawaddy formation (Sand : Saturated?)
4th	2.9	48.9	-94.1	Irrawaddy formation (Clay)
5th	9.0	66.5	-160.7	Irrawaddy formation (Clay - Silt)
6th	21.6			Irrawaddy formation (Sand: Saturated))
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand (Ir)	Estimated SWL( GL-m)	36 m
	Depth (m)	>161m	Remarks:	
	Thickness (m)	>40m		
	Resistivity (Ω-m)	21.6		

Results of Evaluation

Estimated Drilling Depth(m)	200 m	Possibility / Priority	A : High Priority 2
-----------------------------	-------	------------------------	---------------------

Remarks

It is assumed that water quality is not suitable for drinking at the shallow part of target aquifer. It is recommended that drilling depth is set to deep part as possible.

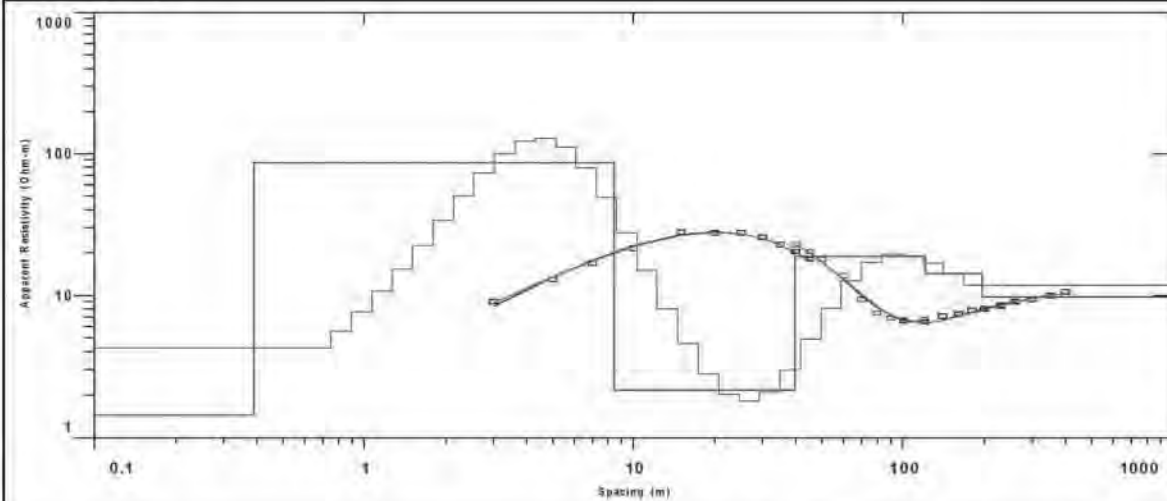
LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

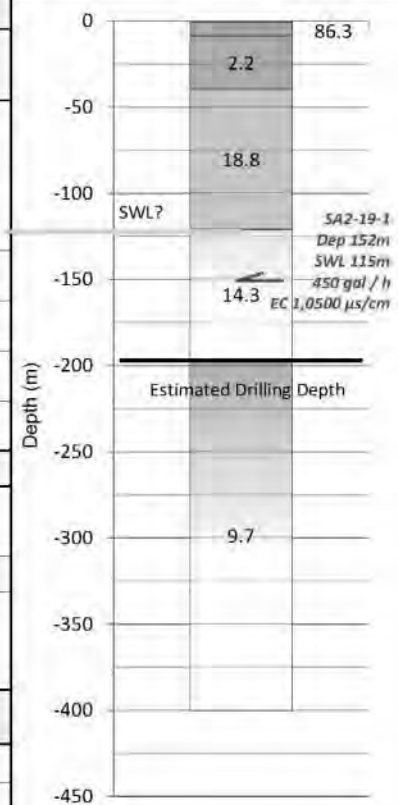
Village ID	SA2-19	Survey Date	06/06/2015
Village	Hlayookan	Coordinate	X : 758,107
Township	Myinmu	(WGS 84 UTM Zone 46N)	Y : 2,439,343
Region	Sagaing	Elevation (m)	Z : 166

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	1.4	0.4	-0.4	Alluvium deposit (Clay - Sand)
2nd	86.3	8.1	-8.5	
3rd	2.2	31.1	-39.6	
4th	18.8	81.2	-120.8	Irrawaddy formation (Silt : Unsaturated?)
5th	14.3	75.9	-196.7	Irrawaddy formation (Silt-Sand : Saturated?)
6th	9.7			Irrawaddy formation (Silt-Clay)
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand - Silt (lr)	Estimated SWL (GL-m)	121 m
	Depth (m)	121 - 197m	Remarks:	
	Thickness (m)	>75m		
	Resistivity (Ω-m)	14.3		

Results of Evaluation

Estimated Drilling Depth(m)	195 m	Possibility / Priority	C : Low-Medium Priority 4
-----------------------------	-------	------------------------	---------------------------

Remarks

From existing borehole, it is expected that capacity of target aquifers is low. Therefore, it is recommended that drilling depth is set to deep part as possible.

LEGEND

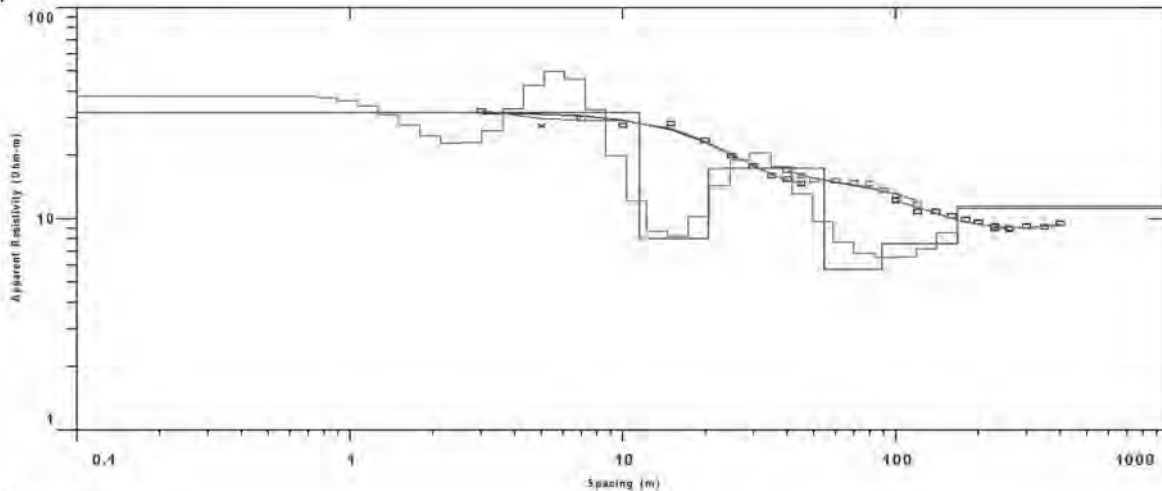
~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m



Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

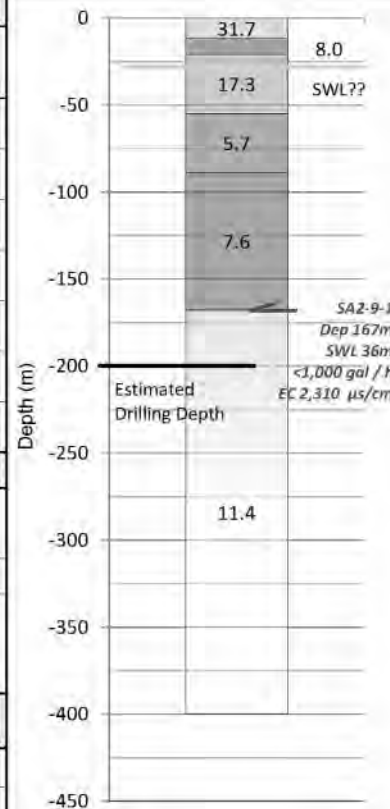
Village ID	SA2-21	Survey Date	06/06/2015
Village	Watkya	Coordinate	X : 745,604
Township	Myinmu	(WGS 84 UTM Zone 46N)	Y : 2,447,822
Region	Sagaing	Elevation (m)	Z : 252

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	31.7	11.5	-11.5	Top Soil / Irrawaddy F
2nd	8.0	9.1	-20.6	Irrawaddy formation (Clay)
3rd	17.3	34.1	-54.7	Irrawaddy formation (Sand : Saturated?)
4th	5.7	34.0	-88.7	Irrawaddy formation (Clay)
5th	7.6	79.0	-167.7	Pegu Group? (Mudstone?)
6th	11.4			Pegu Group? (Sandstone?)
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sandstone (Upper Pegu)	Estimated SWL( GL-m)	36m (Confined)
	Depth (m)	>168m	Remarks:	
	Thickness (m)	>32m		
	Resistivity (Ω-m)	11.4		

Results of Evaluation

Estimated Drilling Depth(m)	200 m	Possibility / Priority	C : Low-Medium Priority 4
-----------------------------	-------	------------------------	---------------------------

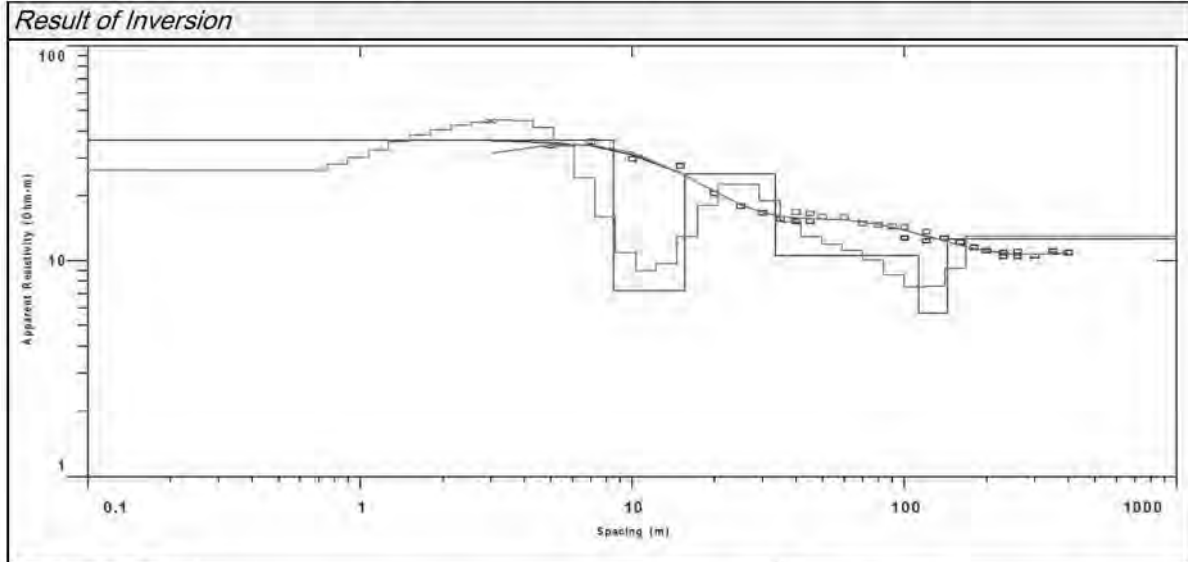
Remarks

LEGEND

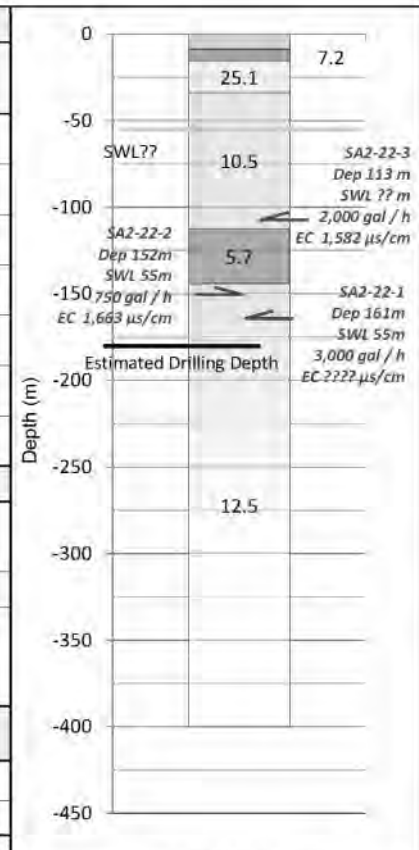
~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

Village ID	SA2-22	Survey Date	06/06/2015
Village	Thahtaykone(Ywarma)	Coordinate	X : 747,673
Township	Myinmu	(WGS 84 UTM Zone 46N)	Y : 2,446,221
Region	Sagaing	Elevation (m)	Z : 254



Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	36.5	8.5	-8.5	
2nd	7.2	7.0	-15.6	Irrawaddy formation (Clay)
3rd	25.1	18.0	-33.6	Irrawaddy formation (Sand : Unsaturated)
4th	10.5	79.1	-112.7	Irrawaddy formation (Sand-Silt : Saturated)
5th	5.7	31.2	-143.9	Pegu group? (Mudstone)
6th	12.5			Pegu group? (Sandstone)
7th				



Target Aquifer	Lithology	Sandstone (Upper Pegu)	Estimated SWL( GL-m)	55m (Confined?)
	Depth (m)	>144 m	Remarks:	
	Thickness (m)	>35m		
	Resistivity (Ω-m)	12.5		

Estimated Drilling Depth(m)	180 m	Possibility / Priority	C : Low-Medium Priority 5
-----------------------------	-------	------------------------	---------------------------

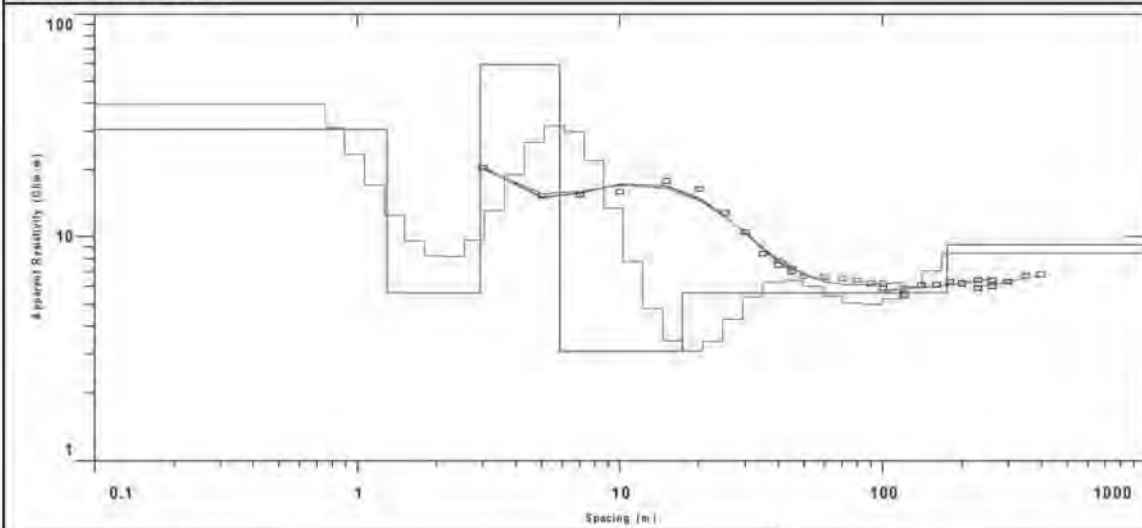
Remarks

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

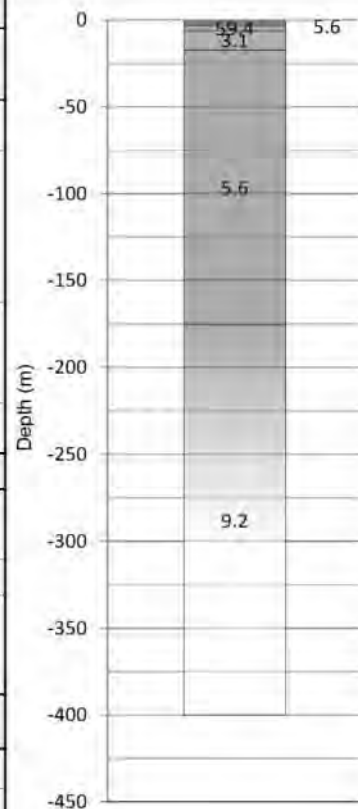
Village ID	SA2-23	Survey Date	07/06/2015
Village	Magyidaw	Coordinate	X : 774,423
Township	Myinmu	(WGS 84 UTM Zone 46N)	Y : 2,444,502
Region	Sagaing	Elevation (m)	Z : 72

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	30.5	1.3	-1.3	Top Soil
2nd	5.6	1.6	-2.9	Alluvium deposit (Sand - Clay)
3rd	59.4	2.9	-5.9	
4th	3.1	11.4	-17.3	Irrawaddy formation (Clay - Silt)
5th	5.6	158.3	-175.6	
6th	9.2			
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	-	Estimated SWL( GL-m)	
	Depth (m)	-	Remarks:	
	Thickness (m)	-		
	Resistivity (Ω-m)	-		

Results of Evaluation

Estimated Drilling Depth(m)	-	Possibility / Priority	D : No possibility
-----------------------------	---	------------------------	--------------------

Remarks

Resistivity value indicates less than 10 Ohm-m up to deep part. It suggests existence of clay or the aquifer that has bad water quality. Therefore, recommended drilling point is not decided.

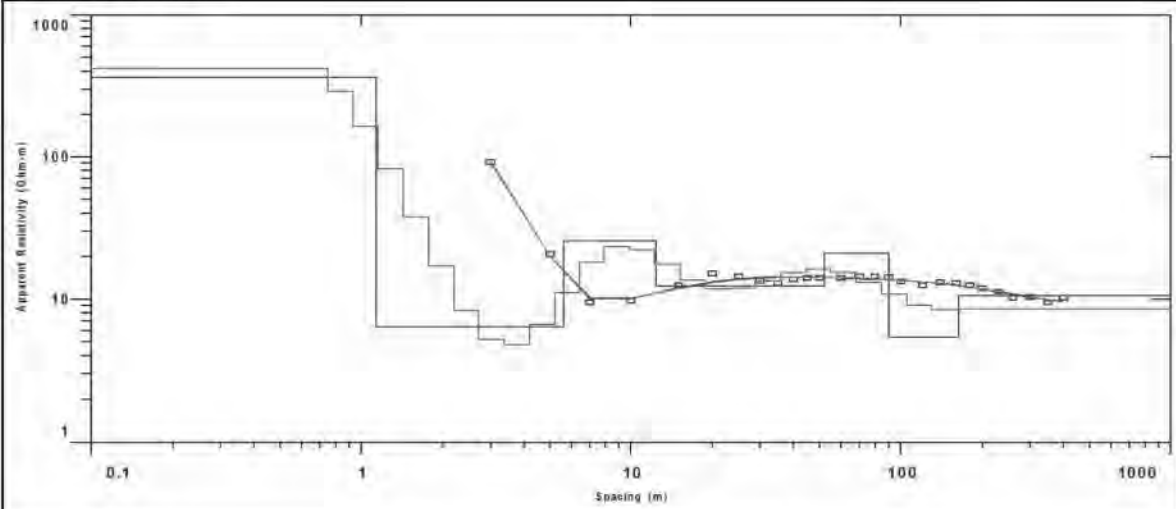
LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

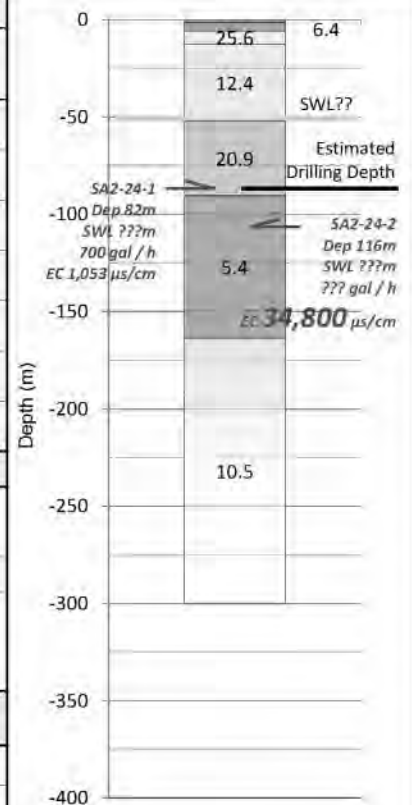
Village ID	SA2-24	Survey Date	12/06/2015
Village	Thindaw	Coordinate	X : 773,385
Township	Kanbalu	(WGS 84 UTM Zone 46N)	Y : 2,613,108
Region	Sagaing	Elevation (m)	Z : 209

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	365.0	1.1	-1.1	Top Soil
2nd	6.4	4.5	-5.6	Alluvium deposit (Clay)
3rd	25.6	6.8	-12.4	Alluvium deposit (Sand)
4th	12.4	39.6	-52.0	Alluvium deposit (Silt)
5th	20.9	38.3	-90.3	Irrawaddy formation (Sand : Saturated)
6th	5.4	73.2	-163.5	Irrawaddy formation (Clay or Salty aquifer)
7th	10.5			Irrawaddy formation (Clay or Salty aquifer)



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand (Ir)	Estimated SWL( GL-m)	50m?
	Depth (m)	52-90m	Remarks:	
	Thickness (m)	>30m		
	Resistivity (Ω-m)	20.9		

Results of Evaluation

Estimated Drilling Depth(m)	80 m	Possibility / Priority	A : High Priority 3
-----------------------------	------	------------------------	---------------------

Remarks

Probably, salty aquifer is distributed around GL-90 m.  
Notice a change in lithology and EC value during the drilling.

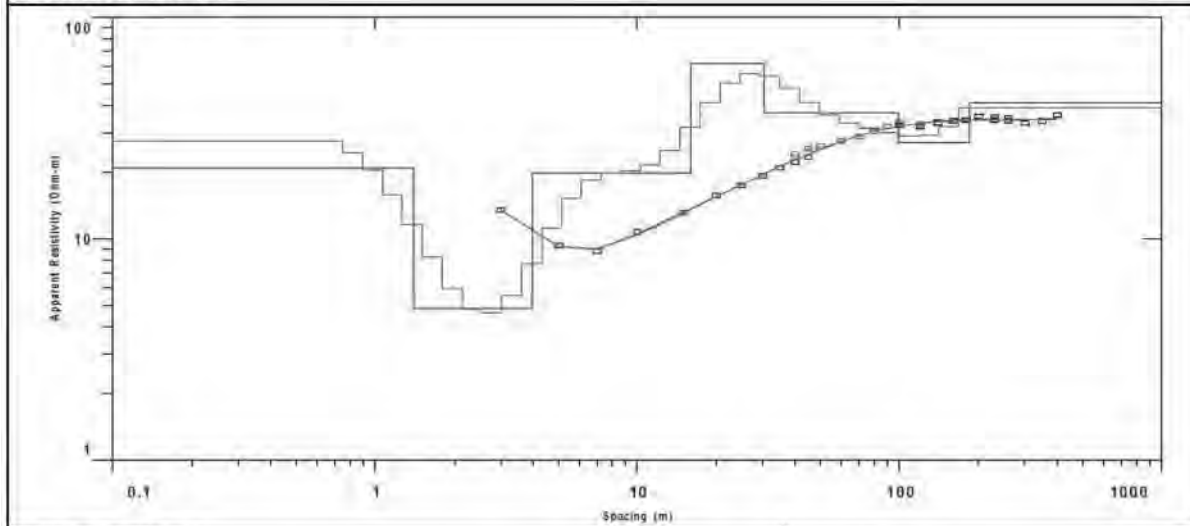
LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

### Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

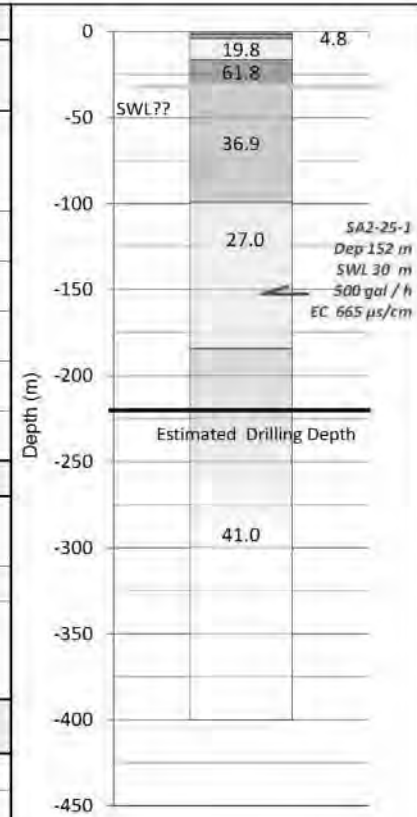
Village ID	SA2-25	Survey Date	12/06/2015
Village	Lwingyi	Coordinate	X : 772,013
Township	Kanbalu	(WGS 84 UTM Zone 46N)	Y : 2,612,839
Region	Sagaing	Elevation (m)	Z : 215

#### Result of Inversion



#### Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	20.8	1.4	-1.4	Top Soil Alluvium deposit
2nd	4.8	2.6	-4.0	
3rd	19.8	12.0	-16.0	Irrawaddy formation (Silt : Unsaturated)
4th	61.8	14.5	-30.5	Irrawaddy formation (Sand : Unsaturated)
5th	36.9	68.5	-98.9	Irrawaddy formation (Sand : Saturated)
6th	27.0	85.2	-184.1	Irrawaddy formation (Sand - Silt? : Saturated)
7th	41.0			Irrawaddy formation (Sand : Saturated)



#### Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand (lr)	Estimated SWL( GL-m)	31 m
	Depth (m)	>184m	Remarks:	
	Thickness (m)	>35m	From information of existing tube well, It is estimated that the potential of upper aquifer (100-184m) is low.	
	Resistivity (Ω-m)	41.0		

#### Results of Evaluation

Estimated Drilling Depth(m)	220 m	Possibility / Priority	B : Medium Priority 3
-----------------------------	-------	------------------------	-----------------------

#### Remarks

From existing borehole, It is expected that capacity of upper aquifer(99-184m) is low. Therefore, Drilling depth is set to lower aquifer.

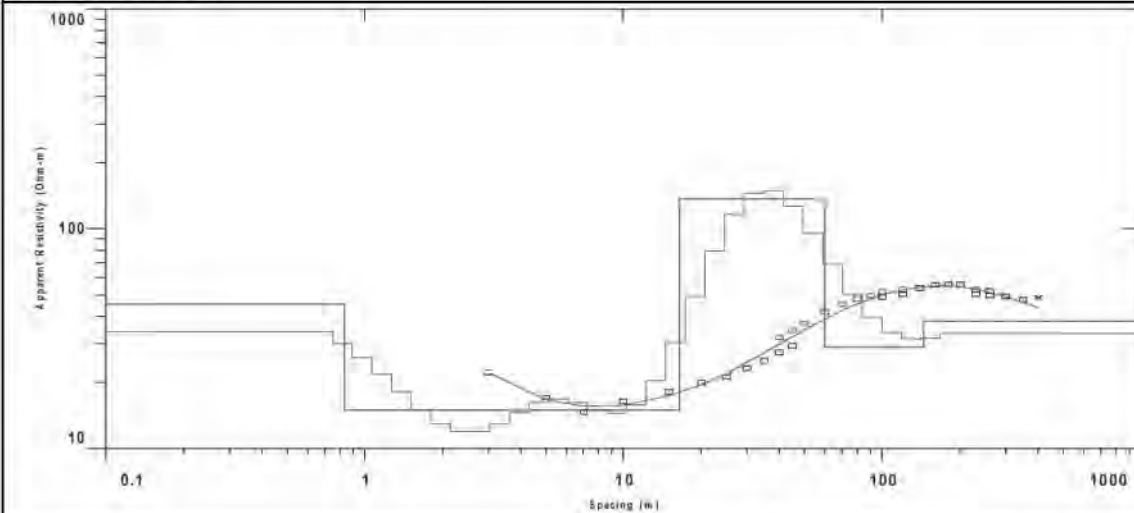
#### LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

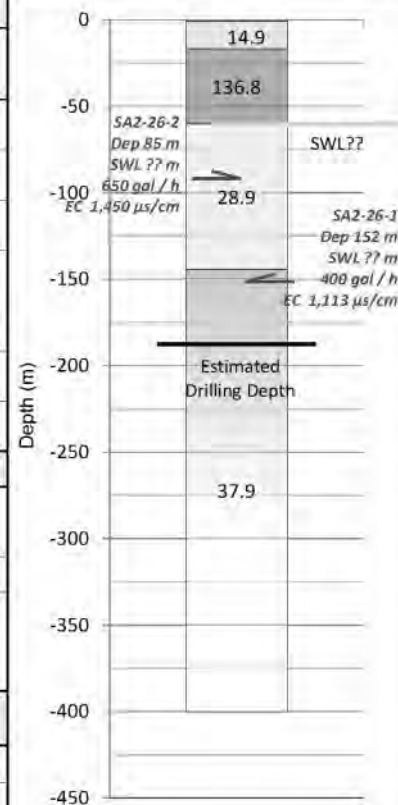
Village ID	SA2-26	Survey Date	13/06/2015
Village	Koetaungboh(Kyunkone)	Coordinate	X : 773,590
Township	Kanbalu	(WGS 84 UTM Zone 46N)	Y : 2,620,729
Region	Sagaing	Elevation (m)	Z : 223

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	45.4	0.8	-0.8	Top Soil
2nd	14.9	15.6	-16.5	Alluvium deposit (Silt - Sand)
3rd	136.8	43.5	-60.0	Alluvium deposit / Irrawaddy f (Sand with Gravel)
4th	28.9	84.3	-144.3	Irrawaddy formation (Sand - Silt : Saturated)
5th	37.9			
6th				
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand - Silt (lr)	Estimated SWL( GL-m)	60m ?
	Depth (m)	>144m	Remarks:	
	Thickness (m)	>40m	From information of existing tube well, it is estimated that the potential of upper aquifer (60-144m) is low.	
	Resistivity (Ω-m)	37.9		

Results of Evaluation

Estimated Drilling Depth(m)	185 m	Possibility / Priority	C : Low-Medium Priority 4
-----------------------------	-------	------------------------	---------------------------

Remarks

From existing borehole, It is expected that capacity of target aquifers is low. Therefore, It is recommended that drilling depth is set to deep part as possible.

LEGEND

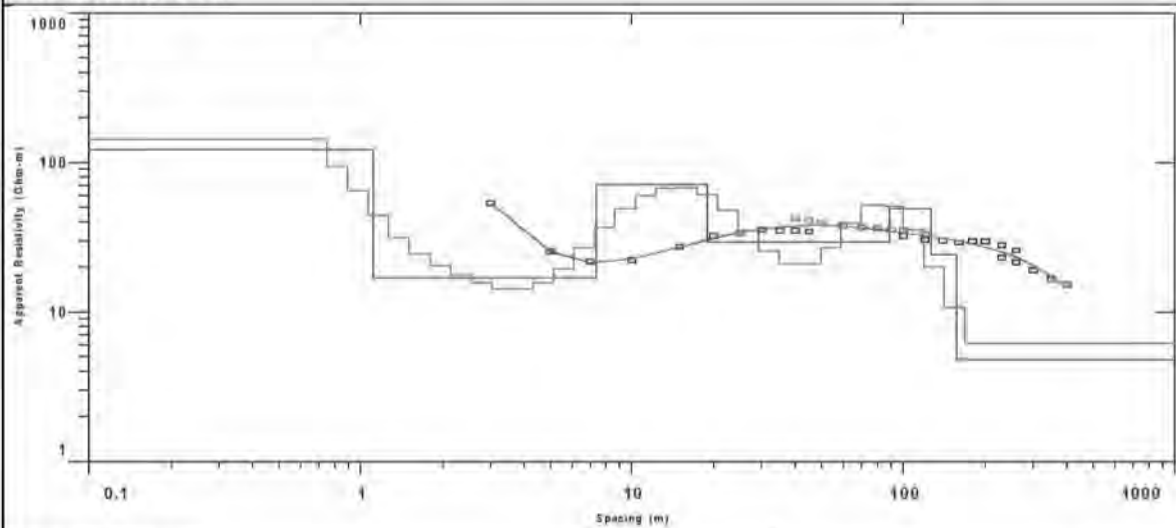
~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m



Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

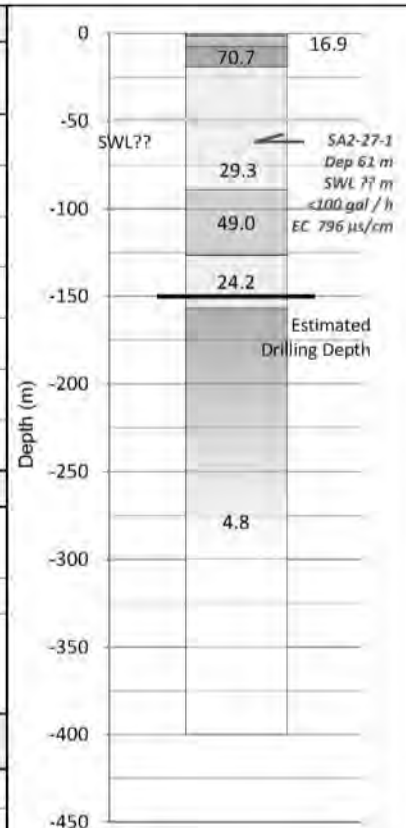
Village ID	SA2-27	Survey Date	13/06/2015
Village	Inngoteto	Coordinate	X : 768,388
Township	Kanbalu	(WGS 84 UTM Zone 46N)	Y : 2,598,038
Region	Sagaing	Elevation (m)	Z : 219

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	122.1	1.1	-1.1	Top Soil
2nd	16.9	6.3	-7.4	Irrawaddy formation (Silt : Unsaturated)
3rd	70.7	11.6	-19.0	Irrawaddy formation (Sand : Unsaturated)
4th	29.3	70.0	-89.0	Irrawaddy formation (Sand - Silt : Saturated)
5th	49.0	37.4	-126.4	Irrawaddy formation (Sand : Saturated)
6th	24.2	30.3	-156.7	Irrawaddy formation (Sand - Silt : Saturated)
7th	4.8			Irrawaddy formation (Clay)



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand - Silt (Ir)	Estimated SWL( GL-m)	50m?
	Depth (m)	<157m	Remarks:	
	Thickness (m)	>90m		
	Resistivity (Ω-m)	24 - 49		

Results of Evaluation

Estimated Drilling Depth(m)	150 m	Possibility / Priority	C : Low-Medium Priority 5
-----------------------------	-------	------------------------	---------------------------

Remarks

From existing borehole, it is expected that capacity of target aquifers is low. Therefore, it is recommended that drilling depth is set to deep part as possible.

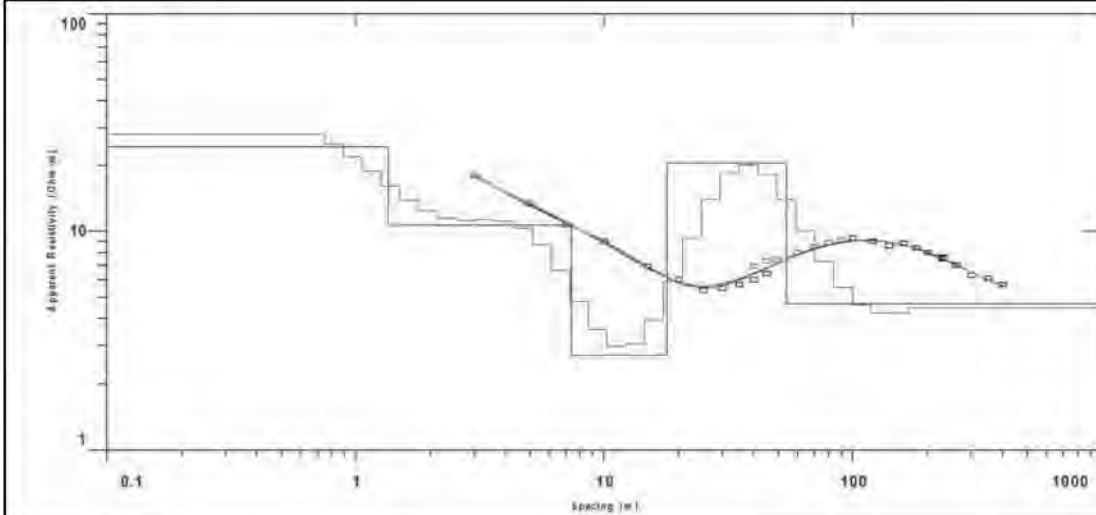
LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

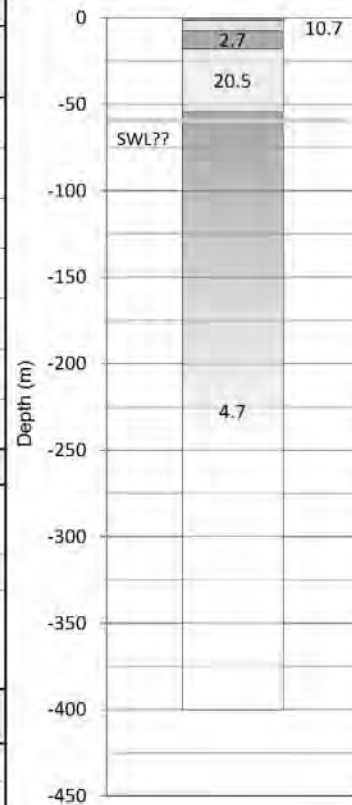
Village ID	SA2-28	Survey Date	16/06/2015
Village	Myayhtoo	Coordinate	X : 745,839
Township	Kanbalu	(WGS 84 UTM Zone 46N)	Y : 2,565,464
Region	Sagaing	Elevation (m)	Z : 158

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	24.4	1.3	-1.3	Top Soil
2nd	10.7	6.0	-7.4	Irrawaddy formation (Clay)
3rd	2.7	10.6	-17.9	Irrawaddy formation (Clay)
4th	20.5	36.2	-54.1	Irrawaddy formation (Silt - Sand : Unsaturated)
5th	4.7			Irrawaddy formation (Clay)
6th				
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	-	Estimated SWL (GL-m)	60 m
	Depth (m)	-	Remarks:	
	Thickness (m)	-		
	Resistivity (Ω-m)	-		

Results of Evaluation

Estimated Drilling Depth(m)	-	Possibility / Priority	D : No possibility
-----------------------------	---	------------------------	--------------------

Remarks

Resistivity value indicates less than 5 ohm-m in the all part which is under static water level.

It suggests existence of clay or the aquifer that has bad water quality.

Therefore, recommended drilling point is not decided.

LEGEND

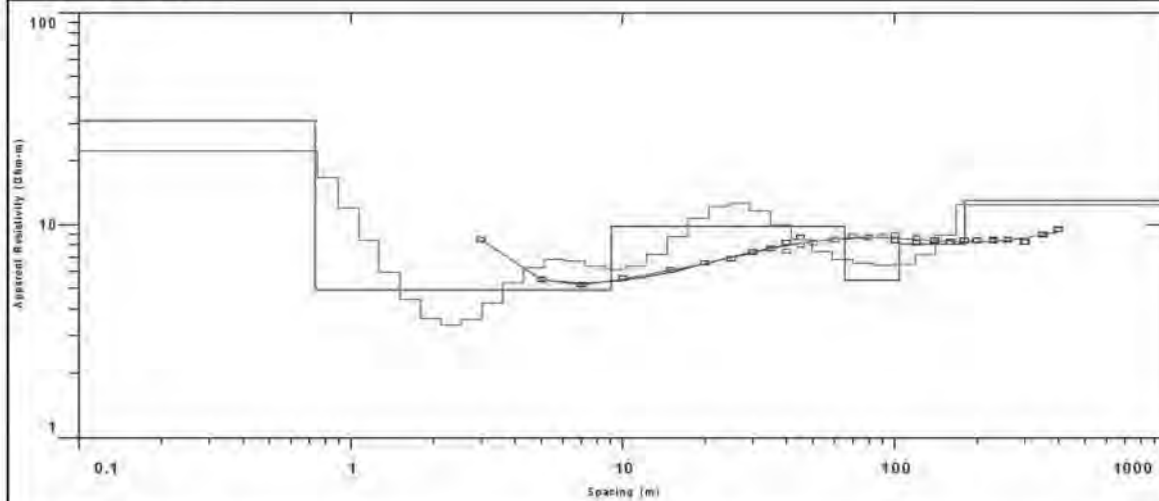
~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m



Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

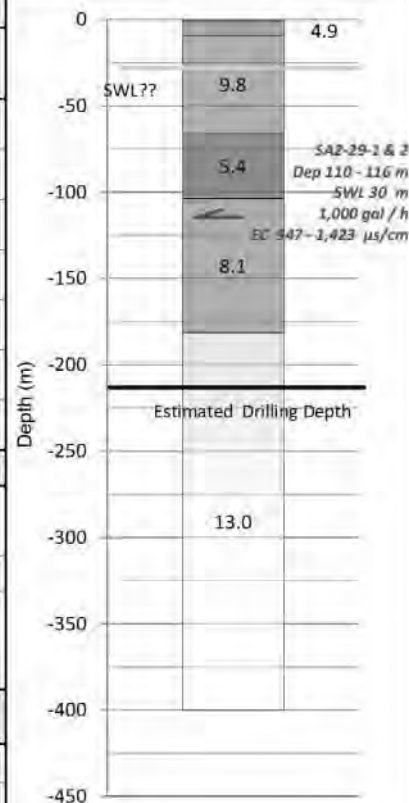
Village ID	SA2-29	Survey Date	15/06/2015
Village	Khaowntar	Coordinate	X : 776,585
Township	Kanbalu	(WGS 84 UTM Zone 46N)	Y : 2,551,429
Region	Sagaing	Elevation (m)	Z : 191

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	30.9	0.7	-0.7	Top Soil
2nd	4.9	8.3	-9.1	Irrawaddy formation (Clay)
3rd	9.8	56.4	-65.4	Irrawaddy formation (Silt)
4th	5.4	38.2	-103.7	Irrawaddy formation (Clay)
5th	8.1	77.8	-181.5	Irrawaddy formation (Silt : Saturated)
6th	13.0			Irrawaddy formation (Silt- Sand : Saturated)
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Silt - Sand (lr)	Estimated SWL( GL-m)	30 m
	Depth (m)	>182m	Remarks:	
	Thickness (m)	>30m		
	Resistivity (Ω-m)	13.0		

Results of Evaluation

Estimated Drilling Depth(m)	215 m	Possibility / Priority	C : Low-Medium Priority 4
-----------------------------	-------	------------------------	---------------------------

Remarks

From existing borehole, It is expected that capacity of target aquifers is low. In addition, It is envisaged that high salinity is included in the groundwater. Therefore, It is recommended that drilling depth is set to deep part as possible.

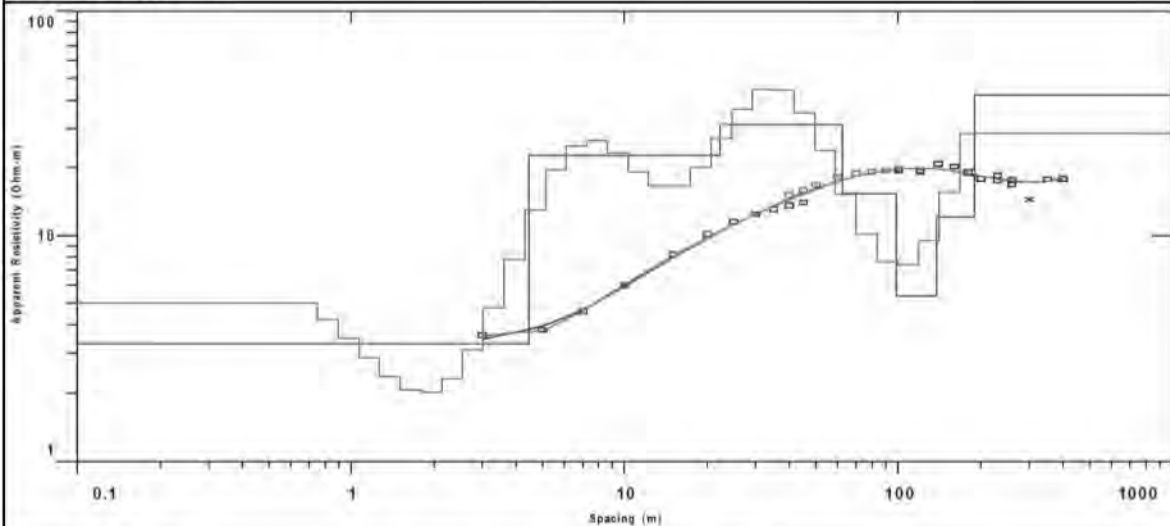
LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

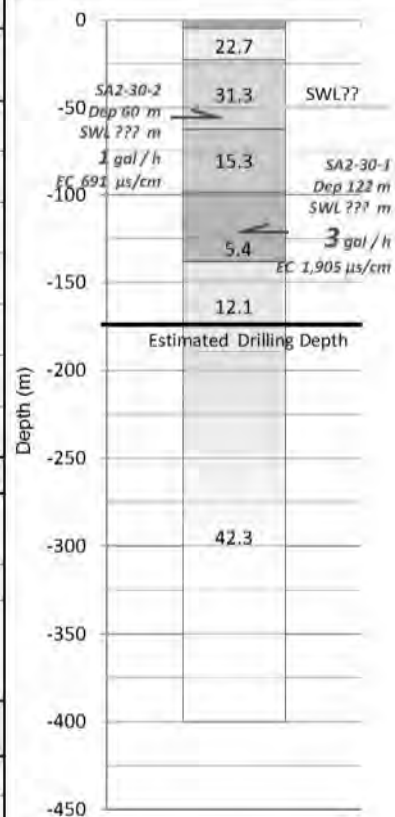
Village ID	SA2-30	Survey Date	14/06/2015
Village	Nyuangkanthar	Coordinate	X : 770,771
Township	Kanbalu	(WGS 84 UTM Zone 46N)	Y : 2,597,741
Region	Sagaing	Elevation (m)	Z : 217

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	3.3	4.5	-4.5	Top Soil
2nd	22.7	17.8	-22.3	Irrawaddy formation (Silt : Unsaturated)
3rd	31.3	40.3	-62.5	Irrawaddy formation (Sand : Semi saturated)
4th	15.3	35.7	-98.2	Irrawaddy formation (Silt : Unsaturated)
5th	5.4	39.7	-138.0	Irrawaddy formation (Clay : Semi saturated)
6th	12.1	51.4	-189.4	Irrawaddy formation (Sand - Silt : Saturated)
7th	42.3			Pegu Group? (Sandstone)



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand - Silt (lr)	Estimated SWL( GL-m)	50 m
	Depth (m)	138 - 189m	Remarks:	
	Thickness (m)	>35m		
	Resistivity (Ω-m)	12.1		

Results of Evaluation

Estimated Drilling Depth(m)	175m	Possibility / Priority	C : Low-Medium Priority 5
-----------------------------	------	------------------------	---------------------------

Remarks

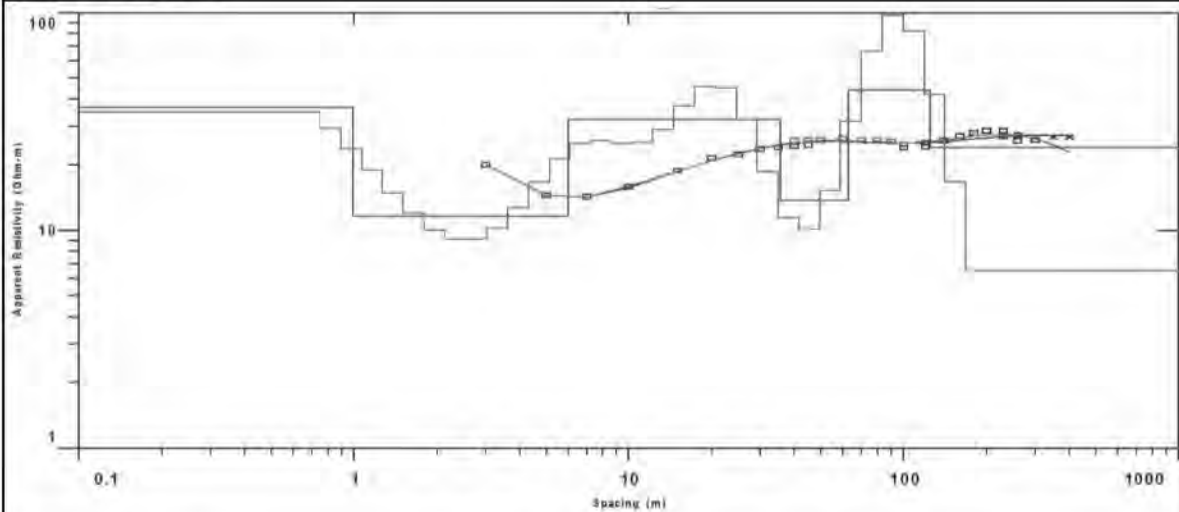
LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

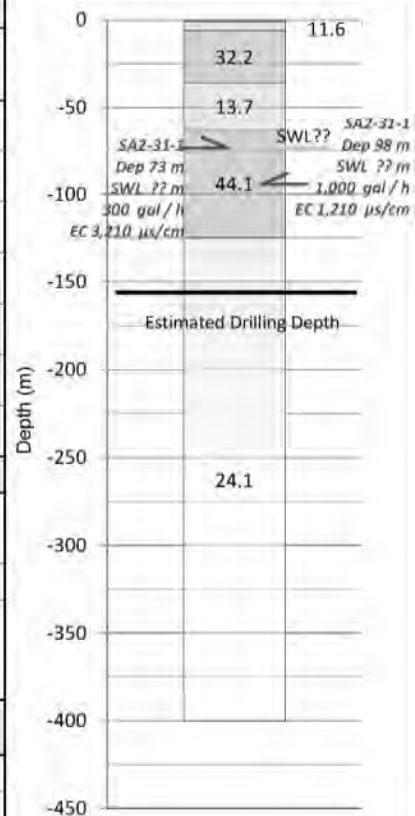
Village ID	SA2-31	Survey Date	15/06/2015
Village	Myaymon	Coordinate	X : 785,110
Township	Kanbalu	(WGS 84 UTM Zone 46N)	Y : 2,544,263
Region	Sagaing	Elevation (m)	Z : 214

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	36.6	1.0	-1.0	Top Soil
2nd	11.6	5.0	-6.0	Irrawaddy formation (Clay : Unsaturated?)
3rd	32.2	29.6	-35.6	Irrawaddy formation (Silt : Unsaturated)
4th	13.7	27.4	-63.0	Irrawaddy formation (Silt : Unsaturated?)
5th	44.1	61.8	-124.8	Irrawaddy formation (Sand with Gravel : Saturated)
6th	24.1			Irrawaddy formation (Sand : Saturated)
7th				



Estimation Results of Hydrogeological Information

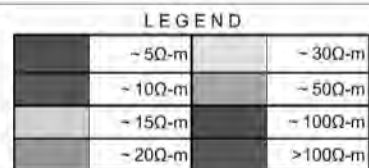
Target Aquifer	Lithology	Sand (Ir)	Estimated SWL( GL-m)	80 m
	Depth (m)	>125m	Remarks:	
	Thickness (m)	>30m		
	Resistivity (Ω-m)	24.1		

Results of Evaluation

Estimated Drilling Depth(m)	155 m	Possibility / Priority	A : High Priority 3
-----------------------------	-------	------------------------	---------------------

Remarks

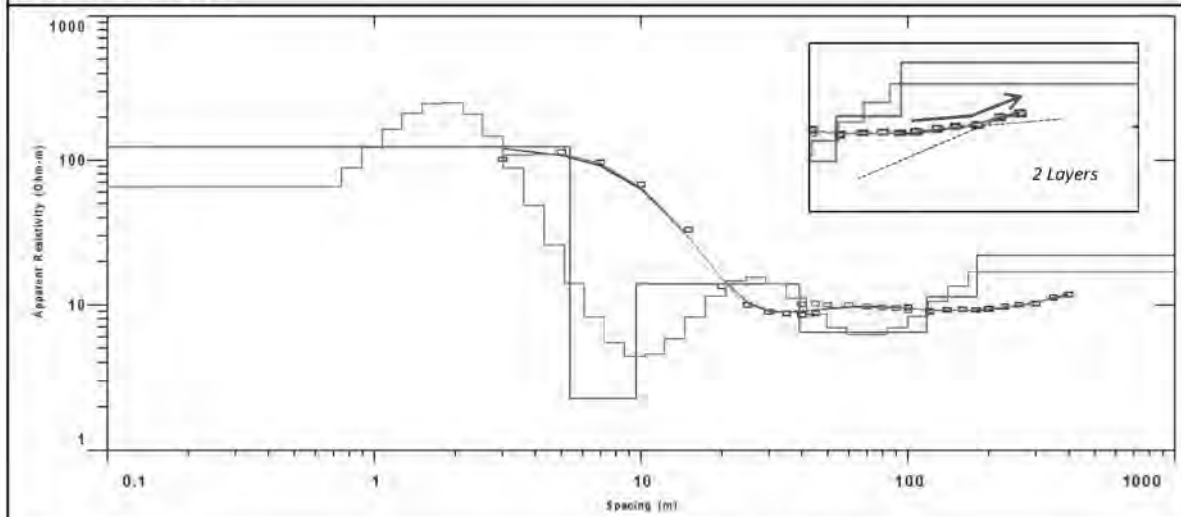
From information of existing tube well , It is assumed that upper aquifer (63-125m) has salinity. So, target aquifer is set to lower layer.(>125m)



Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

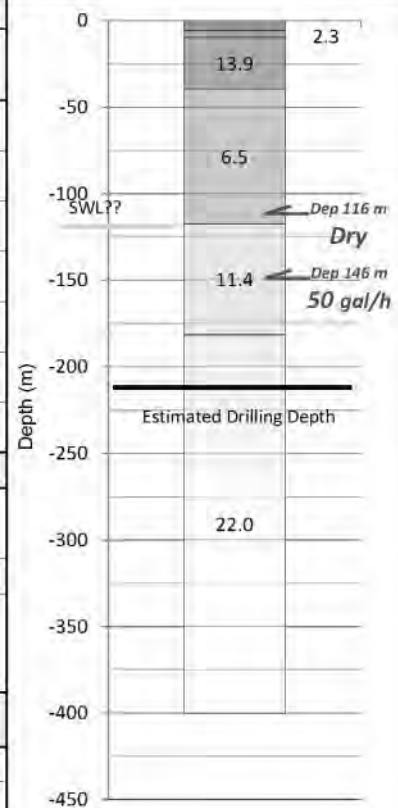
Village ID	SA2-32	Survey Date	17/06/2015
Village	Layytwinzin	Coordinate	X : 800,148
Township	Kanbalu	(WGS 84 UTM Zone 46N)	Y : 2,549,708
Region	Sagaing	Elevation (m)	Z : 147

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	123.5	5.4	-5.4	Top Soil
2nd	2.3	4.2	-9.6	Alluvium deposit (Sand with Gravel)
3rd	13.9	29.6	-39.1	Alluvium deposit (Clay)
4th	6.5	78.2	-117.3	Irrawaddy formation (Silt : Unsaturated)
5th	11.4	64.0	-181.3	Irrawaddy formation (Clay : Unsaturated)
6th	22.0			Irrawaddy formation (Sand : Saturated)
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand (Ir)	Estimated SWL( GL-m)	120m?
	Depth (m)	>180m	Remarks:	
	Thickness (m)	>30m		
	Resistivity (Ω-m)	22.0		

Results of Evaluation

Estimated Drilling Depth(m)	210 m	Possibility / Priority	A : High Priority 2
-----------------------------	-------	------------------------	---------------------

Remarks

From information of existing tube well , It is assumed that potential of upper aquifer (117-181m) is low. So, target aquifer is set to lower layer.(>181m)

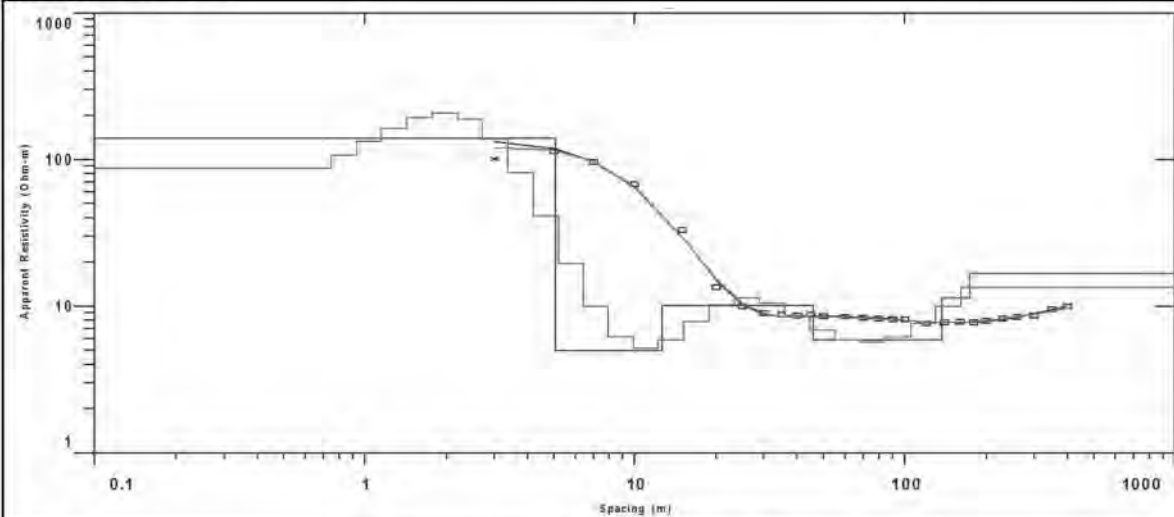
LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

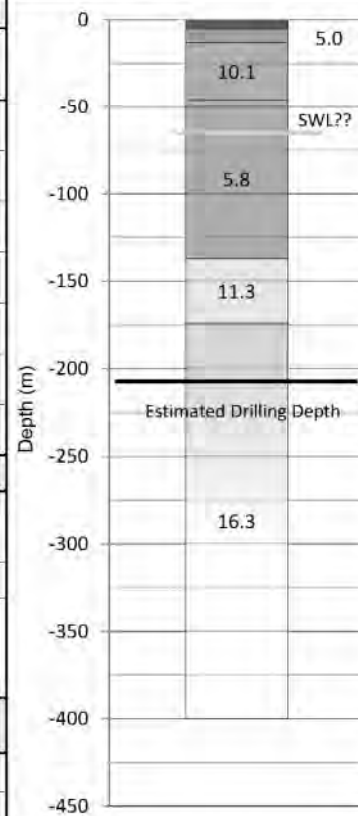
Village ID	SA2-33	Survey Date	14/06/2015
Village	Chaungchar	Coordinate	X : 762,397
Township	Kanbalu	(WGS 84 UTM Zone 46N)	Y : 2,587,371
Region	Sagaing	Elevation (m)	Z : 213

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	138.5	5.0	-5.0	Top Soil
2nd	5.0	7.6	-12.6	Irrawaddy formation (Clay)
3rd	10.1	33.1	-45.8	Irrawaddy formation (Clay)
4th	5.8	91.3	-137.0	Irrawaddy formation (Clay)
5th	11.3	36.7	-173.8	Irrawaddy formation (Silt : Saturated?)
6th	16.3			Irrawaddy formation (Sand : Saturated)
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand (Ir)	Estimated SWL( GL-m)	60 m?
	Depth (m)	>174m	Remarks:	
	Thickness (m)	>31m		
	Resistivity (Ω-m)	16.3		

Results of Evaluation

Estimated Drilling Depth(m)	205 m	Possibility / Priority	B : Medium Priority 3
-----------------------------	-------	------------------------	-----------------------

Remarks

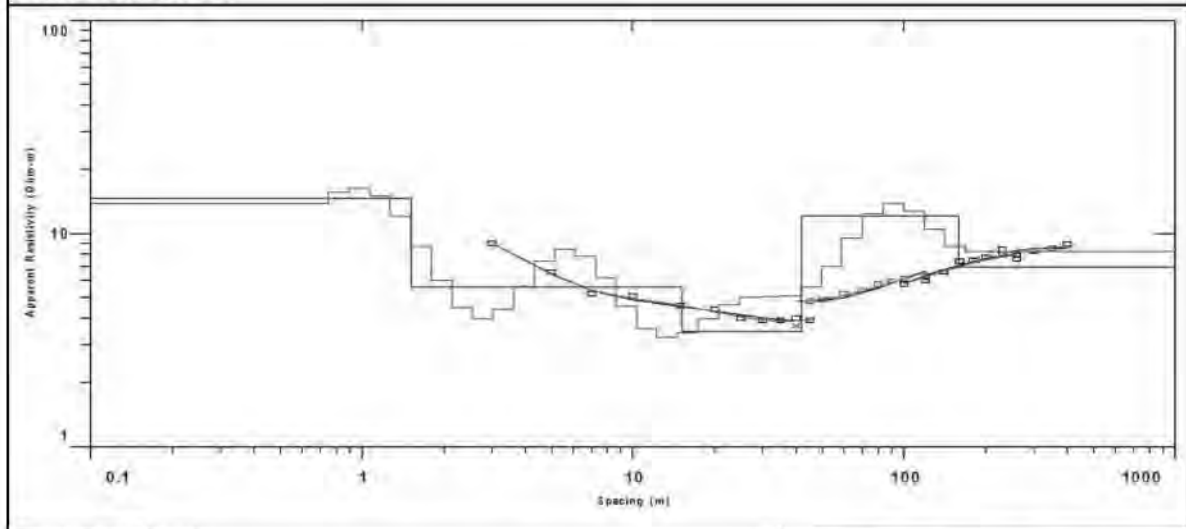
LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

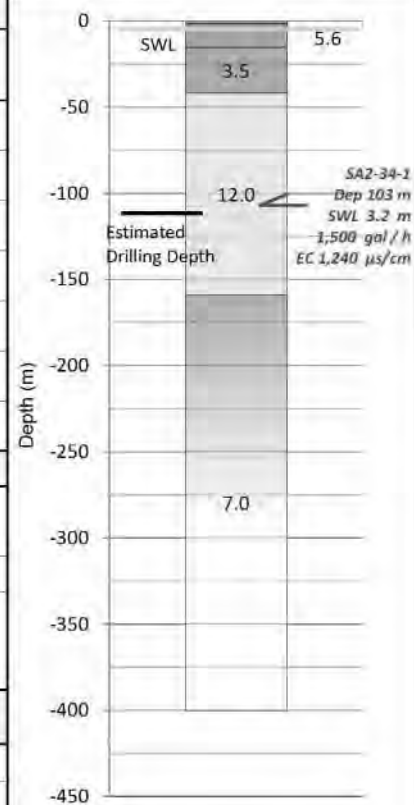
Village ID	SA2-34	Survey Date	17/06/2015
Village	Minyogone	Coordinate	X : 731,866
Township	Dabayin	(WGS 84 UTM Zone 46N)	Y : 2,513,234
Region	Sagaing	Elevation (m)	Z : 112

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	14.6	1.5	-1.5	Top Soil
2nd	5.6	13.7	-15.2	Alluvium deposit (Clay - Silt)
3rd	3.5	26.6	-41.8	Alluvium deposit (Clay)
4th	12.0	117.3	-159.1	Irrawaddy formation (Silt - Sand : Confined Aquifer)
5th	7.0			Irrawaddy formation (Clay)
6th				
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Silt - Sand (lr)	Estimated SWL( GL-m)	3 m (Confined)
	Depth (m)	42 - 159 m	Remarks:	
	Thickness (m)	>65m		
	Resistivity (Ω-m)	12.0		

Results of Evaluation

Estimated Drilling Depth(m)	110m	Possibility / Priority	C : Low-Medium Priority 5
-----------------------------	------	------------------------	---------------------------

Remarks

Since resistivity is shown low value, it is assumed that potential of target aquifer is low. Therefore, It is recommended that drilling depth is set to deep part as possible.

LEGEND

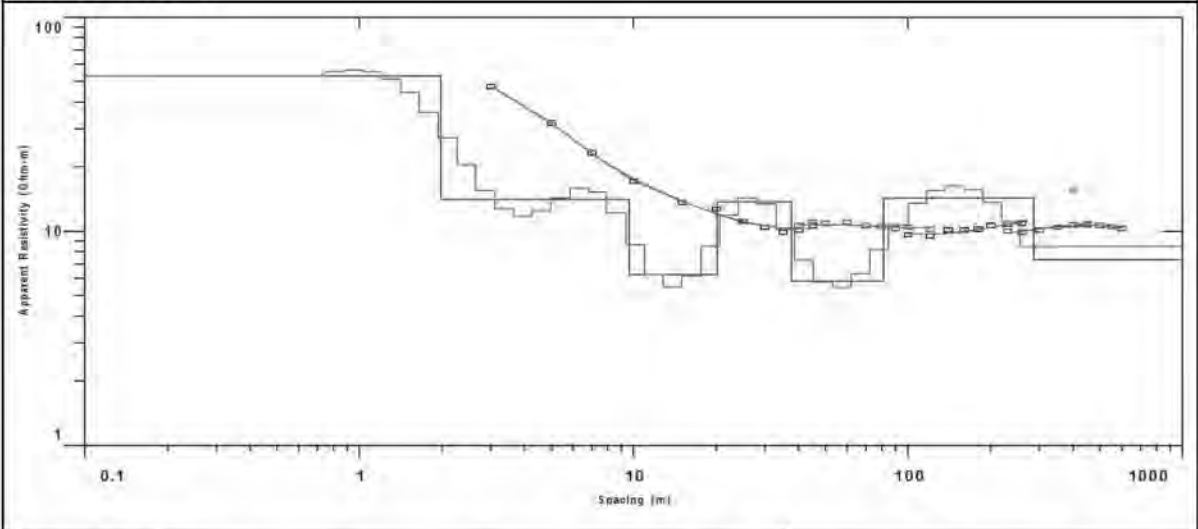
~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m



Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

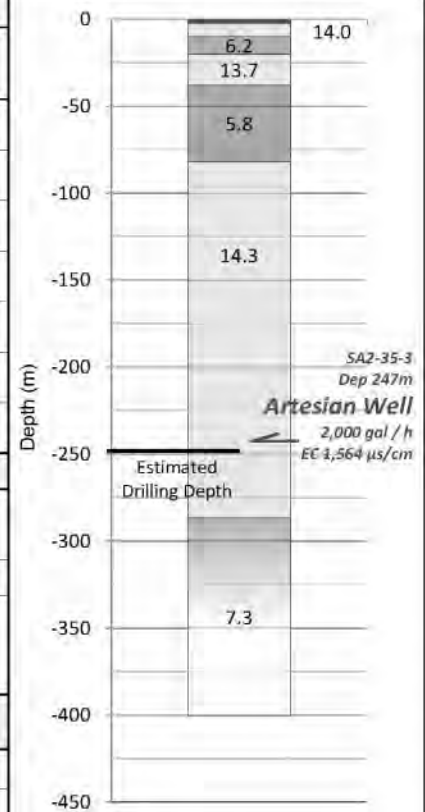
Village ID	SA2-35	Survey Date	16/06/2015
Village	Shandaw	Coordinate	X : 725,913
Township	Dabayin	(WGS 84 UTM Zone 46N)	Y : 2,501,505
Region	Sagaing	Elevation (m)	Z : 132

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	52.8	2.0	-2.0	Top soil
2nd	14.0	7.6	-9.6	Irrawaddy formation (Silt : Unsaturated?)
3rd	6.2	10.5	-20.1	Irrawaddy formation (Clay)
4th	13.7	17.6	-37.7	Irrawaddy formation (Silt : Unsaturated?)
5th	5.8	43.9	-81.6	Irrawaddy formation (Clay)
6th	14.3	205.0	-286.6	Irrawaddy formation (Silt - Sand : Saturated)
7th	7.3			Irrawaddy formation (Clay)



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand - Silt (Ir)	Estimated SWL (GL-m)	" +GL " Artesian Well
	Depth (m)	81 - 286 m	Remarks:	
	Thickness (m)	>170m		
	Resistivity (Ω-m)	14.3		

Results of Evaluation

Estimated Drilling Depth(m)	250 m	Possibility / Priority	C : Low-Medium Priority 4
-----------------------------	-------	------------------------	---------------------------

Remarks

Drilling depth is decided by information of existing tube well.

LEGEND

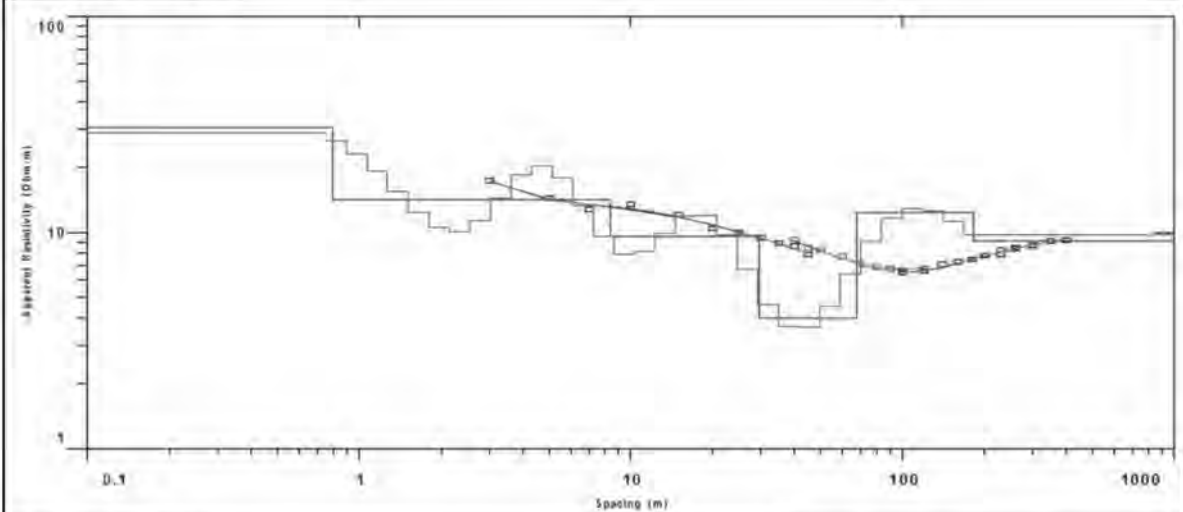
~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m



Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

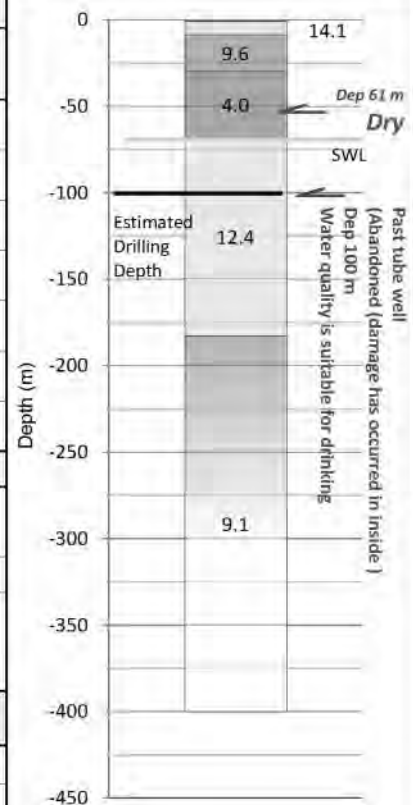
Village ID	SA2-36	Survey Date	15/06/2015
Village	Kyuntaw (S)	Coordinate	X : 728,632
Township	Dabayin	(WGS 84 UTM Zone 46N)	Y : 2,505,189
Region	Sagaing	Elevation (m)	Z : 121

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	30.6	0.8	-0.8	Top soil
2nd	14.1	7.6	-8.4	Alluvium deposit (Silt : Unsaturated)
3rd	9.6	21.3	-29.7	Alluvium deposit (Clay - Silt)
4th	4.0	38.2	-67.9	Irrawaddy formation (Clay)
5th	12.4	114.8	-182.7	Irrawaddy formation (Silt - Sand : Saturated)
6th	9.1			Irrawaddy formation (Silt -)
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand - Silt (lr)	Estimated SWL( GL-m)	68m ?
	Depth (m)	68 - 183m	Remarks:	
	Thickness (m)	>32m		
	Resistivity (Ω-m)	12.4		

Results of Evaluation

Estimated Drilling Depth(m)	100 m	Possibility / Priority	C : Low-Medium Priority 5
-----------------------------	-------	------------------------	---------------------------

Remarks

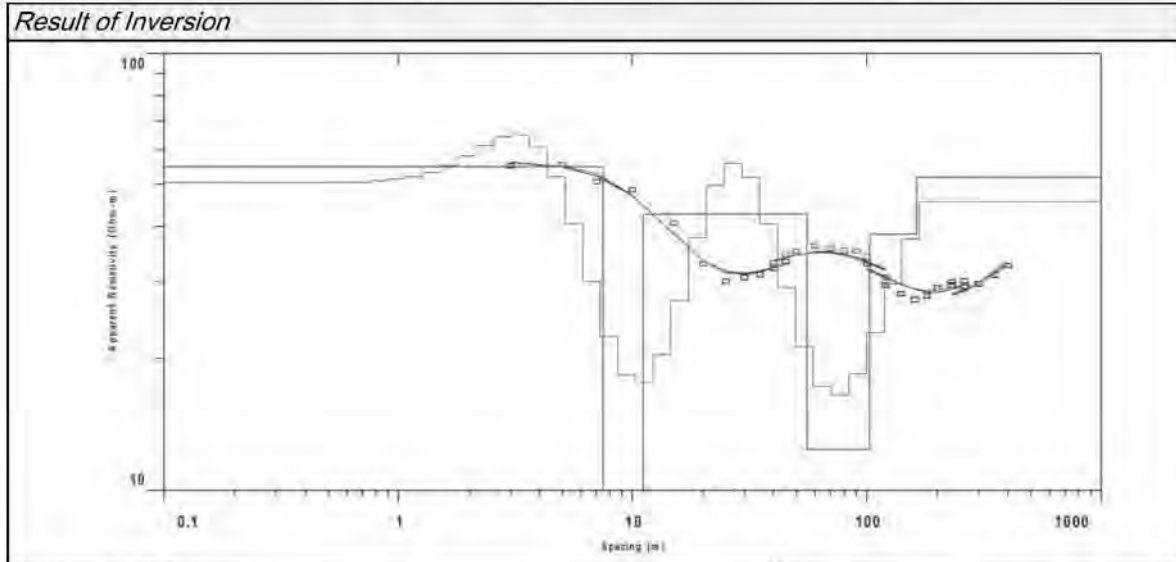
Drilling depth is decided by information of past tube well.

LEGEND

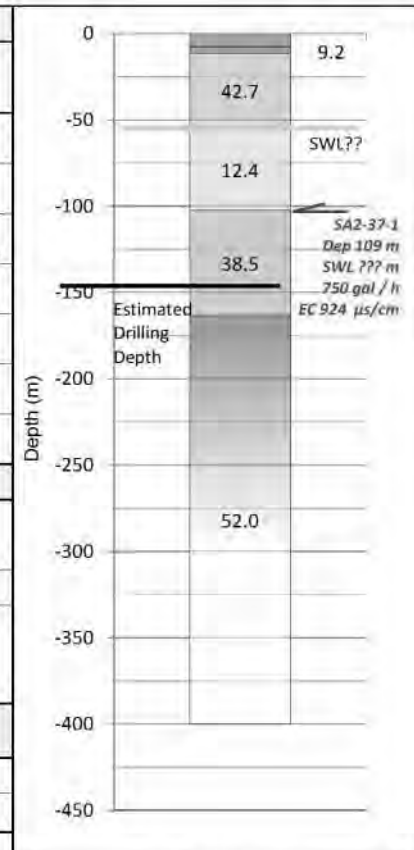
~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

Village ID	SA2-37	Survey Date	10/06/2015
Village	PalaeThwe (Ywarthit)	Coordinate	X : 798,805
Township	Wetlet	(WGS 84 UTM Zone 46N)	Y : 2,492,481
Region	Sagaing	Elevation (m)	Z : 167



Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	55.0	7.5	-7.5	Top Soil
2nd	9.2	3.6	-11.1	Irrawaddy formation (Clay)
3rd	42.7	44.3	-55.4	Irrawaddy formation (Sand - Silt? : Unsaturated)
4th	12.4	47.1	-102.5	Irrawaddy formation (Sily - Clay : Unsaturated)
5th	38.5	60.9	-163.4	Irrawaddy formation (Sand : Saturated)
6th	52.0			Irrawaddy formation (Sand with Gravel?)
7th				



Target Aquifer	Lithology	Sand (lr)	Estimated SWL( GL-m)	55 m
	Depth (m)	102 - 163m	Remarks:	
	Thickness (m)	>28m		
	Resistivity (Ω-m)	38.5		

Estimated Drilling Depth(m)	130 m	Possibility / Priority	A : High Priority 3
-----------------------------	-------	------------------------	---------------------

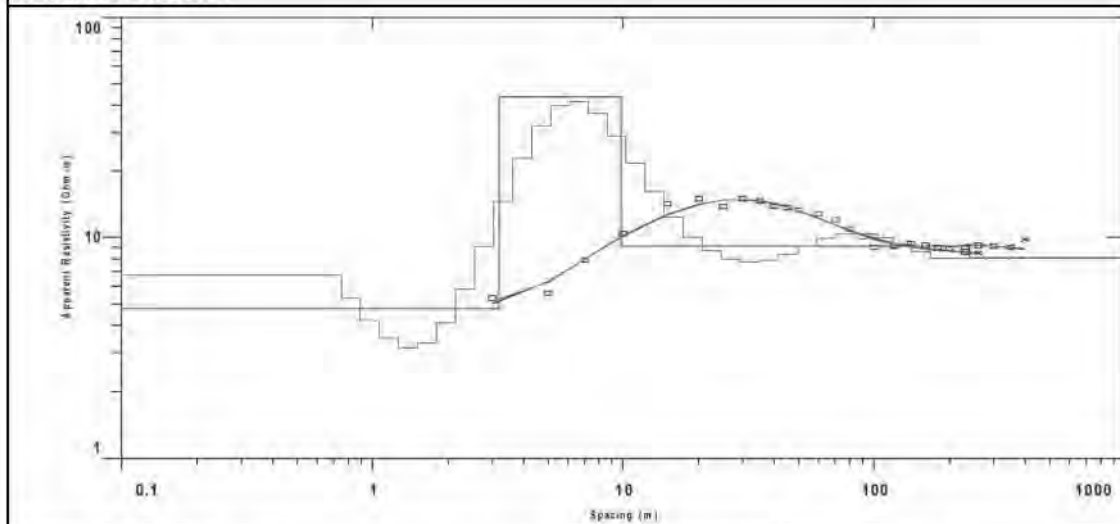
Remarks

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

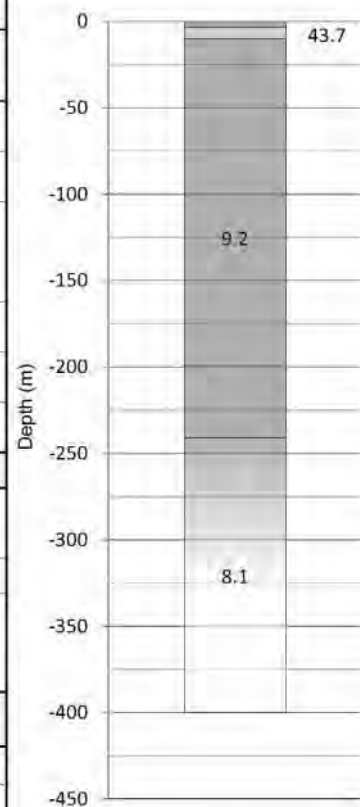
Village ID	SA2-38	Survey Date	09/06/2015
Village	Poukkan	Coordinate	X : 796,554
Township	Wetlet	(WGS 84 UTM Zone 46N)	Y : 2,461,964
Region	Sagaing	Elevation (m)	Z : 105

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	4.7	3.2	-3.2	Top Soil
2nd	43.7	6.6	-9.8	Irrawaddy formation (Sand)
3rd	9.2	231.2	-241.0	Irrawaddy formation (Clay - Silt)
4th	8.1			
5th				
6th				
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	-	Estimated SWL (GL-m)	
	Depth (m)	-	Remarks:	
	Thickness (m)	-		
	Resistivity (Ω-m)	-		

Results of Evaluation

Estimated Drilling Depth(m)	-	Possibility / Priority	D : No possibility
-----------------------------	---	------------------------	--------------------

Remarks  
 Resistivity value indicates less than 10 Ohm-m up to deep part.  
 It suggests existence of clay or the aquifer that has bad water quality.  
 Therefore, recommended drilling point is not decided.

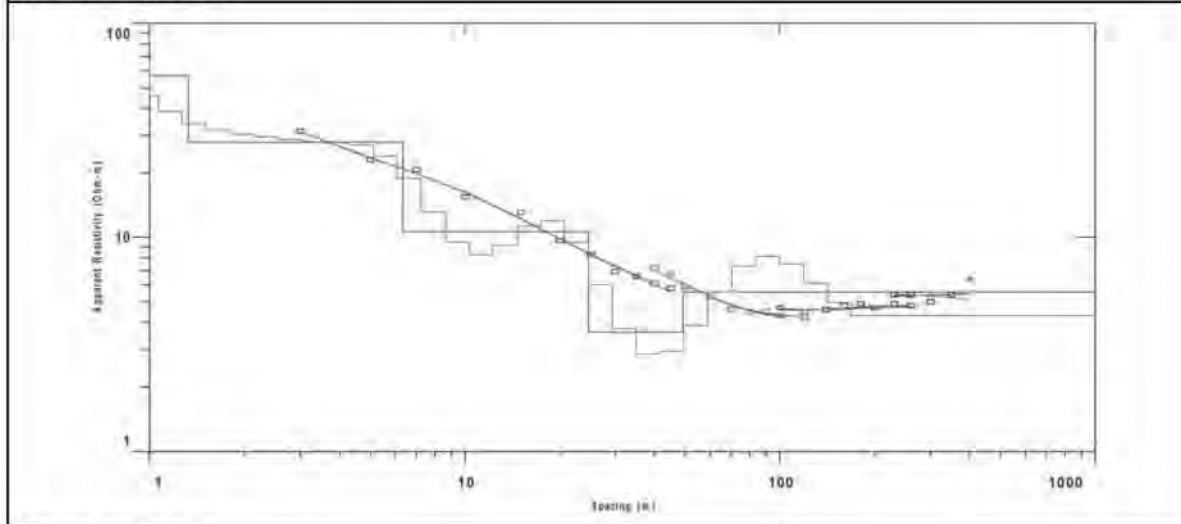
LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

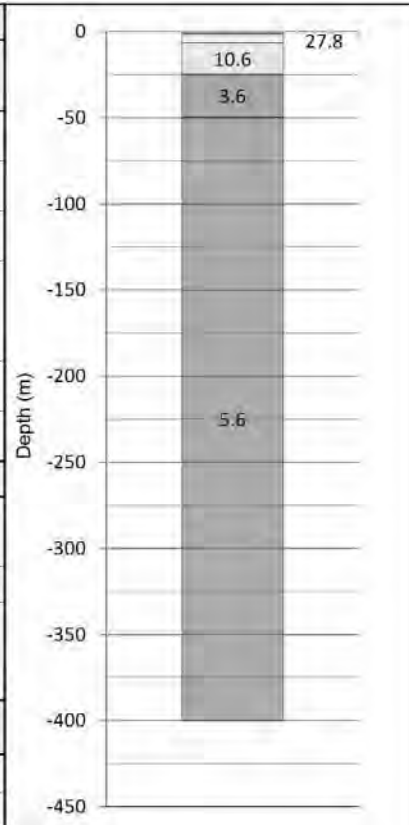
Village ID	SA2-39	Survey Date	10/06/2015
Village	Shwenyaungtaw	Coordinate	X : 803,378
Township	Wetlet	(WGS 84 UTM Zone 46N)	Y : 2,470,867
Region	Sagaing	Elevation (m)	Z : 105

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	56.9	1.3	-1.3	Top Soil
2nd	27.8	5.0	-6.4	Irrawaddy formation (Sand)
3rd	10.6	18.3	-24.6	Irrawaddy formation (Silt)
4th	3.6	24.7	-49.3	Irrawaddy formation (Clay)
5th	5.6			
6th				
7th				



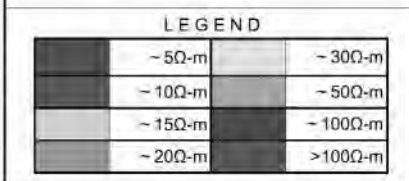
Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	-	Estimated SWL( GL-m)
	Depth (m)	-	Remarks:
	Thickness (m)	-	
	Resistivity (Ω-m)	-	

Results of Evaluation

Estimated Drilling Depth(m)	-	Possibility / Priority	D : No possibility
-----------------------------	---	------------------------	--------------------

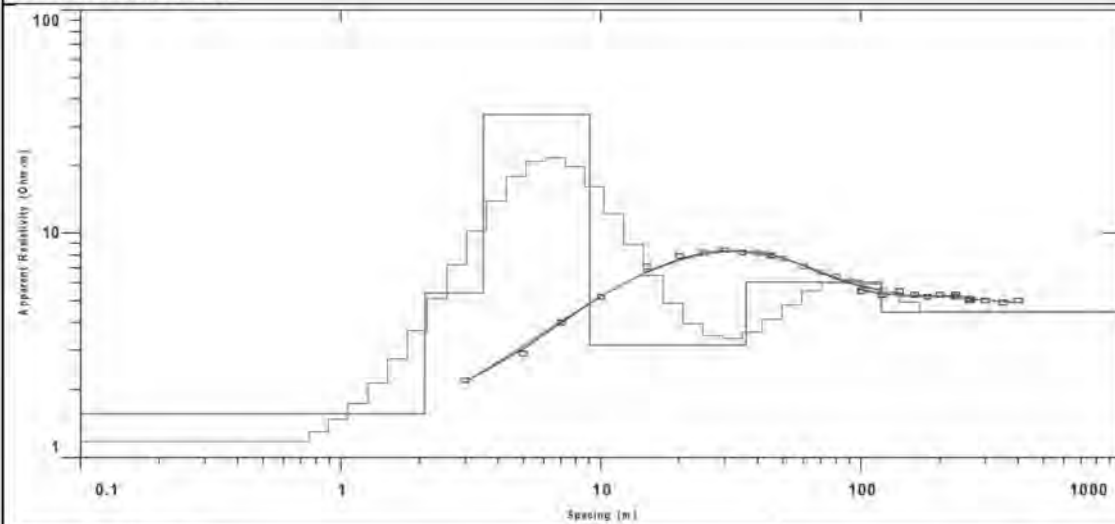
Remarks  
 Resistivity value indicates less than 10 Ohm-m up to deep part.  
 It suggests existence of clay or the aquifer that has bad water quality.  
 Therefore, recommended drilling point is not decided.



Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

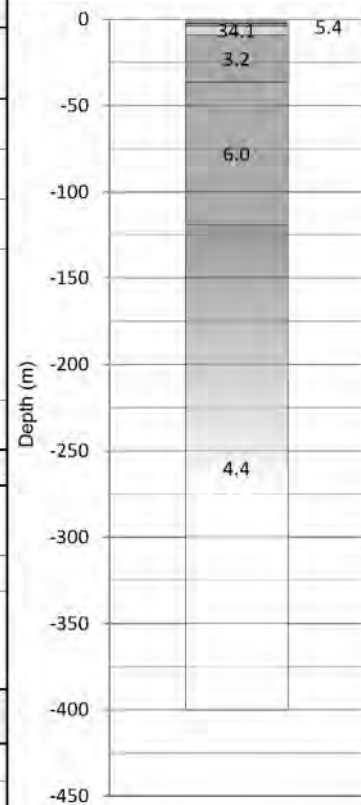
Village ID	SA2-40	Survey Date	09/06/2015
Village	Sabeidaw	Coordinate	X : 786,537
Township	Wetlet	(WGS 84 UTM Zone 46N)	Y : 2,473,987
Region	Sagaing	Elevation (m)	Z : 99

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	1.6	2.1	-2.1	Top Soil
2nd	5.4	1.4	-3.5	Irrawaddy formation (Clay)
3rd	34.1	5.5	-9.1	Irrawaddy formation (Sand)
4th	3.2	27.1	-36.1	Irrawaddy formation (Clay)
5th	6.0	83.2	-119.3	
6th	4.4			
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	-	Estimated SWL( GL-m)	
	Depth (m)	-	Remarks:	
	Thickness (m)	-		
	Resistivity (Ω-m)	-		

Results of Evaluation

Estimated Drilling Depth(m)	-	Possibility / Priority	D : No Possibility
-----------------------------	---	------------------------	--------------------

Remarks

Resistivity value indicates less than 10 Ohm-m up to deep part. It suggests existence of clay or the aquifer that has bad water quality. Therefore, recommended drilling point is not decided.

LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

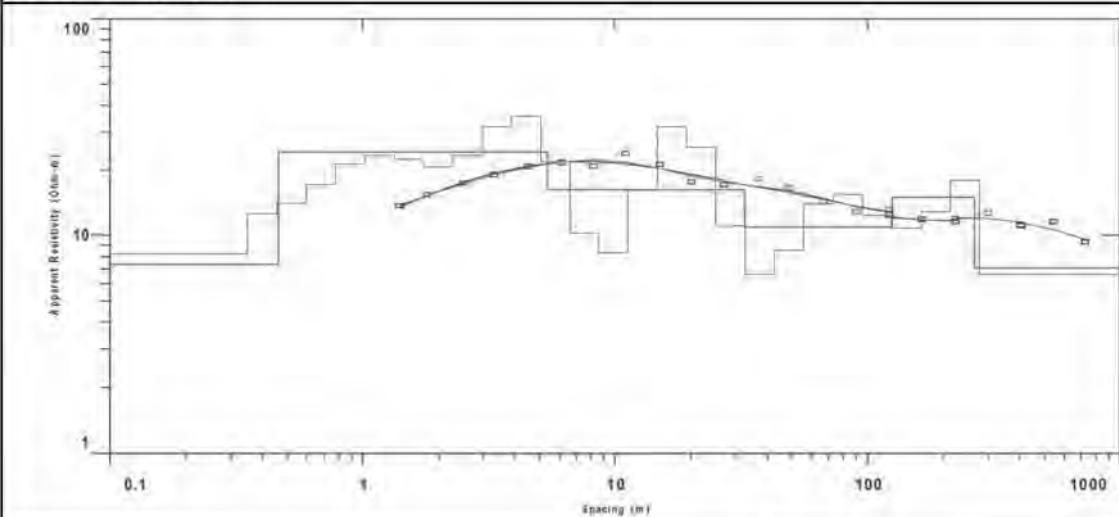
## Vertical Electric Sounding (VES) at Mandalay Region

MA2-02	Asone Village
MA2-03	Khinthar(S) Village
MA2-04	Chaysay Village
MA2-05	Talgyi Village
MA2-06	Kuywar Village
MA2-08	Nyaungwum Village
MA2-17	Chaungsone(La) Village
MA2-19	Tharzi Village
MA2-20	Kanaye Village
MA2-22	Oakpo Village
MA2-23	Kangyi Village
MA2-24	Htanekan Village
MA2-25	Waryonesu Village
MA2-26	Talkone Village
MA2-27	Tawbyar Village
MA2-28	Setsetyo Village
MA2-29	Kanzauk Village
MA2-30	Talbindel Village
MA2-31	Mongywettaw Village
MA2-34	Saingan(Tetide) Village
MA2-35	Byugyi Village
MA2-39	Thayattaw Village
MA2-40	Nakyatkhwai Village

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

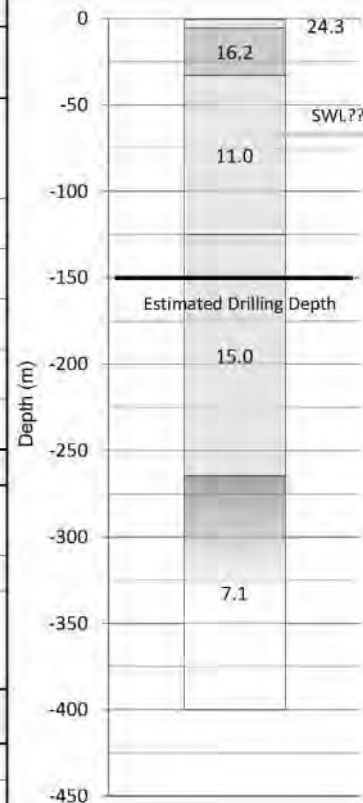
Village ID	MA2-02	Survey Date	28/06/2015
Village	Asone	Coordinate	X : 769,139
Township	Mahlaing	(WGS 84 UTM Zone 46N)	Y : 2,329,229
Region	Mandalay	Elevation (m)	Z : 283

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	7.4	0.5	-0.5	Top soil (unsaturated)
2nd	24.3	4.9	-5.4	
3rd	16.2	27.2	-32.6	Irrawaddy formation (Silt : Unsaturated)
4th	11.0	92.6	-125.2	Irrawaddy formation (Silt : Semisaturated)
5th	15.0	139.3	-264.5	Irrawaddy formation (Sand : Saturated)
6th	7.1			Pegu Group? (Mudstone)
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand (lr)	Estimated SWL( GL-m)	60 m
	Depth (m)	125 - 265m	Remarks:	
	Thickness (m)	>25m		
	Resistivity (Ω-m)	15.0		

Results of Evaluation

Estimated Drilling Depth(m)	155 m	Possibility / Priority	B : Medium Priority 4
-----------------------------	-------	------------------------	-----------------------

Remarks

Drilling depth is estimated from existing tube well which has a similar situation of geological feature.(MA2-01)

LEGEND

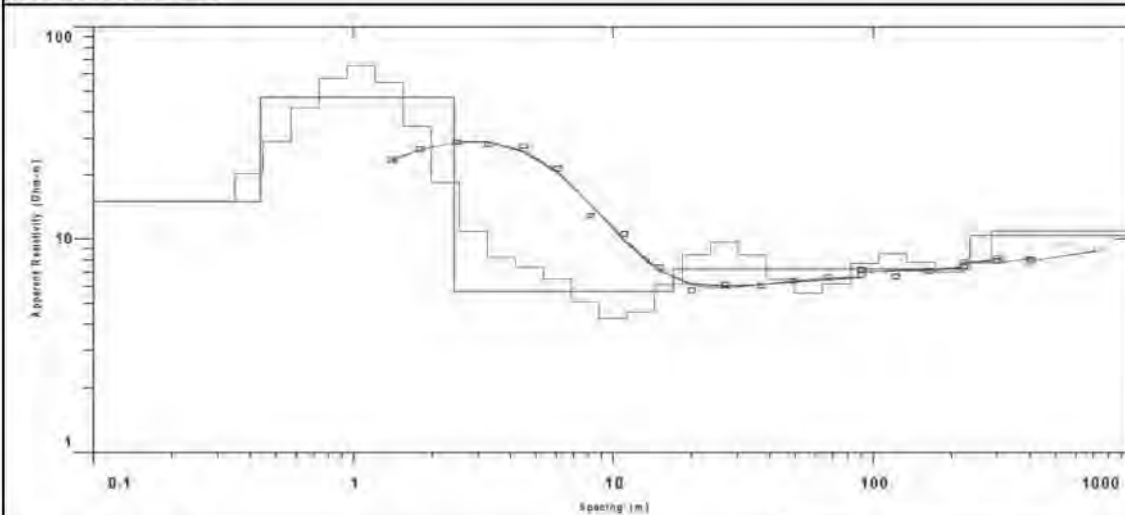
~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m



Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

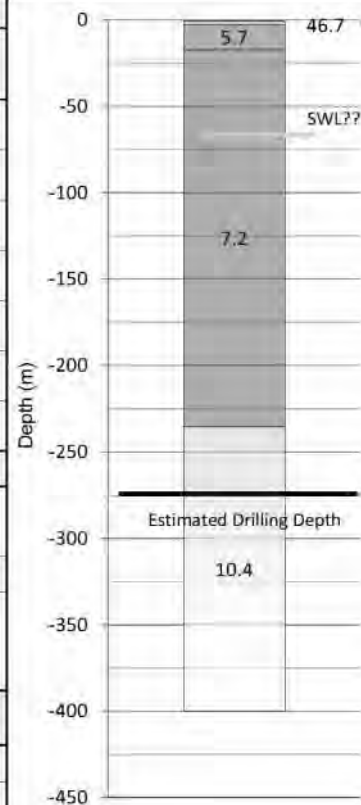
Village ID	MA2-03	Survey Date	28/06/2015
Village	Khinthar(S)	Coordinate	X: 782,173
Township	Mahlaing	(WGS 84 UTM Zone 46N)	Y: 2,317,120
Region	Mandalay	Elevation (m)	Z: 305

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	15.0	0.4	-0.4	Top soil
2nd	46.7	2.0	-2.4	Top soil
3rd	5.7	14.6	-17.0	Pegu Group (Mudstone/silt?)
4th	7.2	218.4	-235.4	Pegu Group (Mudstone/silt?)
5th	10.4			Pegu Group (Sandstone?)
6th				
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Pegu Group (Sandstone?)	Estimated SWL( GL-m)	60 m
	Depth (m)	>-235m	Remarks:	
	Thickness (m)	>25m		
	Resistivity (Ω-m)	10.4		

Results of Evaluation

Estimated Drilling Depth(m)	270 m	Possibility / Priority	C : Low-Medium Priority 4
-----------------------------	-------	------------------------	---------------------------

Remarks

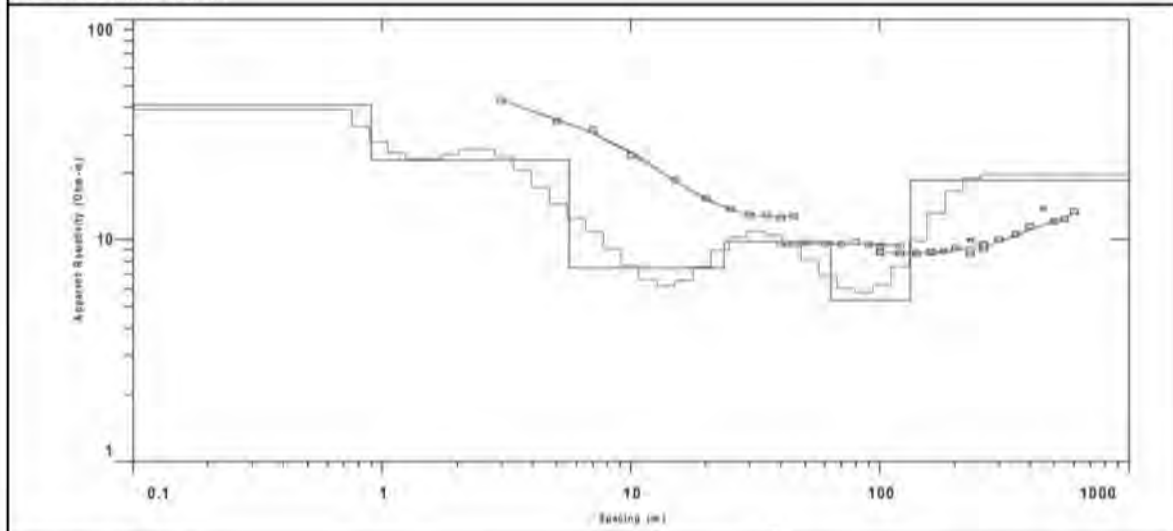
LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

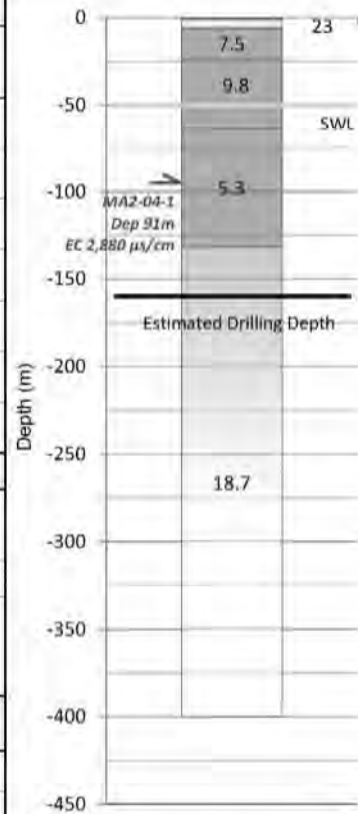
Village ID	MA2-04	Survey Date	01/06/2015
Village	Chaysay	Coordinate	X : 753,016
Township	Myingyan	(WGS 84 UTM Zone 46N)	Y : 2,368,981
Region	Mandalay	Elevation (m)	Z : 130

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	41.0	0.9	-0.9	Top Soil
2nd	23.0	4.7	-5.6	Top Soil
3rd	7.5	18.0	-23.6	Pegu Group (>Ms)
4th	9.8	39.8	-63.4	Pegu Group (>Ms)
5th	5.3	68.5	-131.9	Pegu Group (>Ms)
6th	18.7			Pegu Group (>Ss: Saturated?)
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Pegu Group (>Ss)	Estimated SWL( GL-m)	50 m
	Depth (m)	>132m	Remarks:	
	Thickness (m)	>25m	Static water level is estimated by tube well which is located near the site.	
	Resistivity (Ω-m)	18.7		

Results of Evaluation

Estimated Drilling Depth(m)	160 m	Possibility / Priority	A : High Priority 3
-----------------------------	-------	------------------------	---------------------

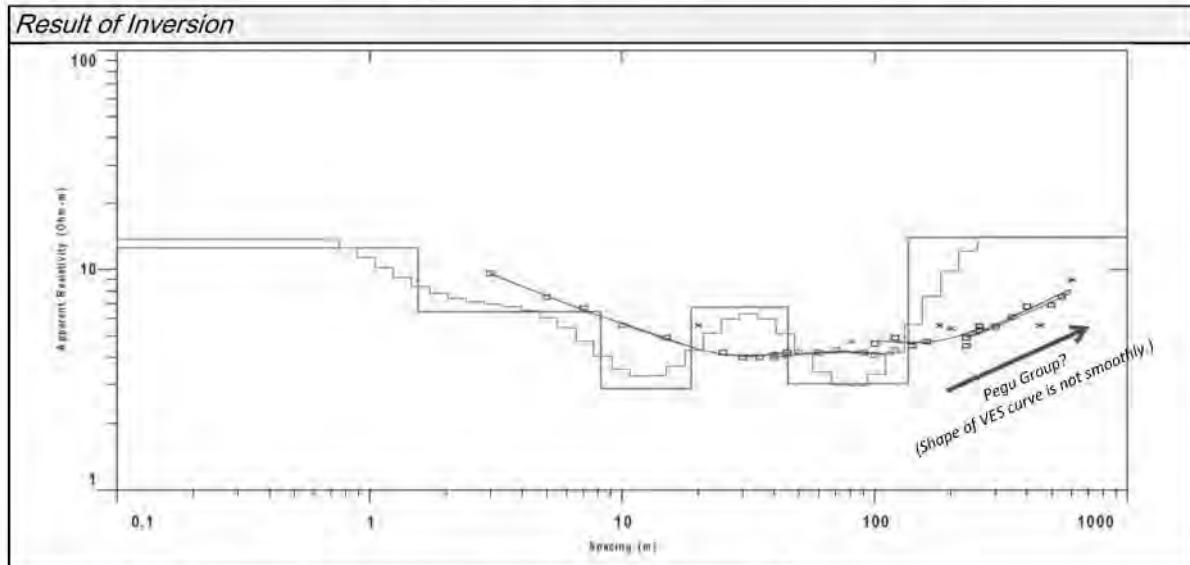
Remarks

LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

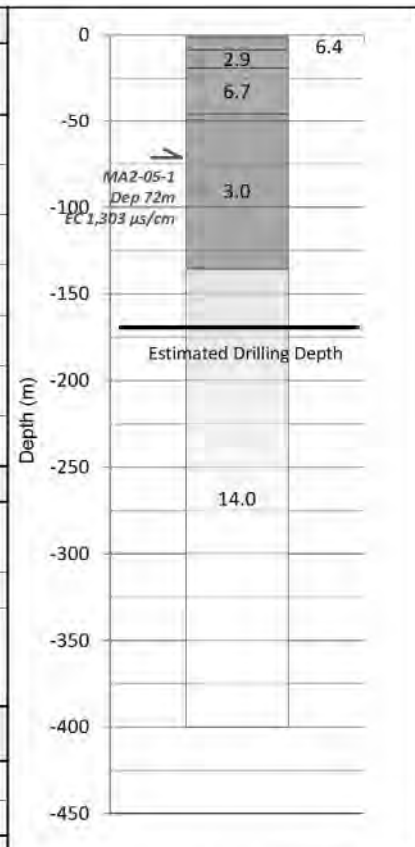
Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

Village ID	MA2-05	Survey Date	02/06/2015
Village	Talgyi	Coordinate	X : 758,848
Township	Myingyan	(WGS 84 UTM Zone 46N)	Y : 2,404,789
Region	Mandalay	Elevation (m)	Z : 105



**Resistivity Model**

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	12.5	1.5	-1.5	Top Soil
2nd	6.4	6.7	-8.3	Alluvium Deposit?
3rd	2.9	10.5	-18.7	Irrawaddi formation? (Clay)
4th	6.7	26.5	-45.3	Irrawaddi formation? (Silt)
5th	3.0	90.3	-135.6	Irrawaddi formation? (Clay)
6th	14.0			Pegu Group? (>Ss)
7th				



**Estimation Results of Hydrogeological Information**

Target Aquifer	Lithology	Pegu Group? (>Ss)	Estimated SWL( GL-m)	?
	Depth (m)	>136m	Remarks:	
	Thickness (m)	>34m		
	Resistivity (Ω-m)	14.0		

**Results of Evaluation**

Estimated Drilling Depth(m)	170 m	Possibility / Priority	C : Low-Middle Priority 5
-----------------------------	-------	------------------------	---------------------------

Remarks

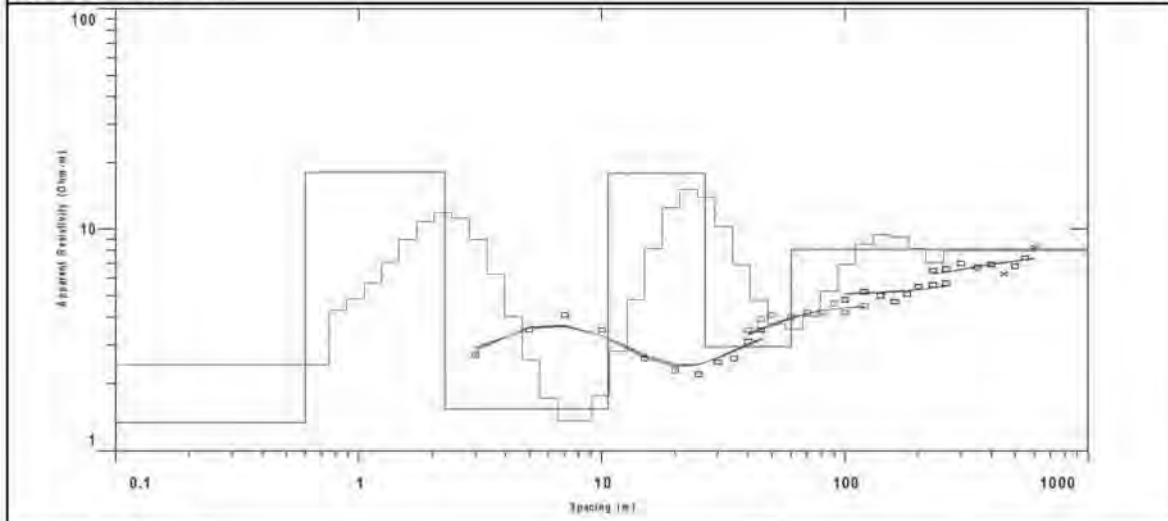
**LEGEND**

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

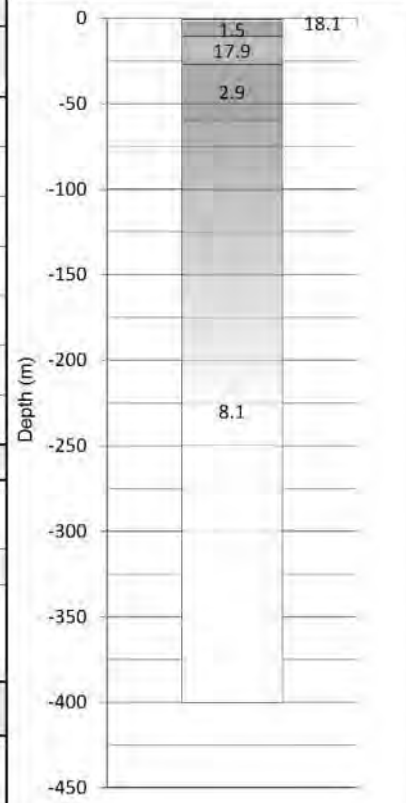
Village ID	MA2-06	Survey Date	01/06/2015
Village	Kuywar	Coordinate	X : 750,116
Township	Myingyan	(WGS 84 UTM Zone 46N)	Y : 2,369,227
Region	Mandalay	Elevation (m)	Z : 117

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	1.3	0.6	-0.6	
2nd	18.1	1.6	-2.2	
3rd	1.5	8.4	-10.6	
4th	17.9	16.0	-26.6	
5th	2.9	33.4	-59.5	
6th	8.1			
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	-	Estimated SWL( GL-m)	-
	Depth (m)	-	Remarks:	
	Thickness (m)	-		
	Resistivity (Ω-m)	-		

Results of Evaluation

Estimated Drilling Depth(m)	-	Priority	No Possibility
-----------------------------	---	----------	----------------

Remarks

Refer to 2D results more information for more information

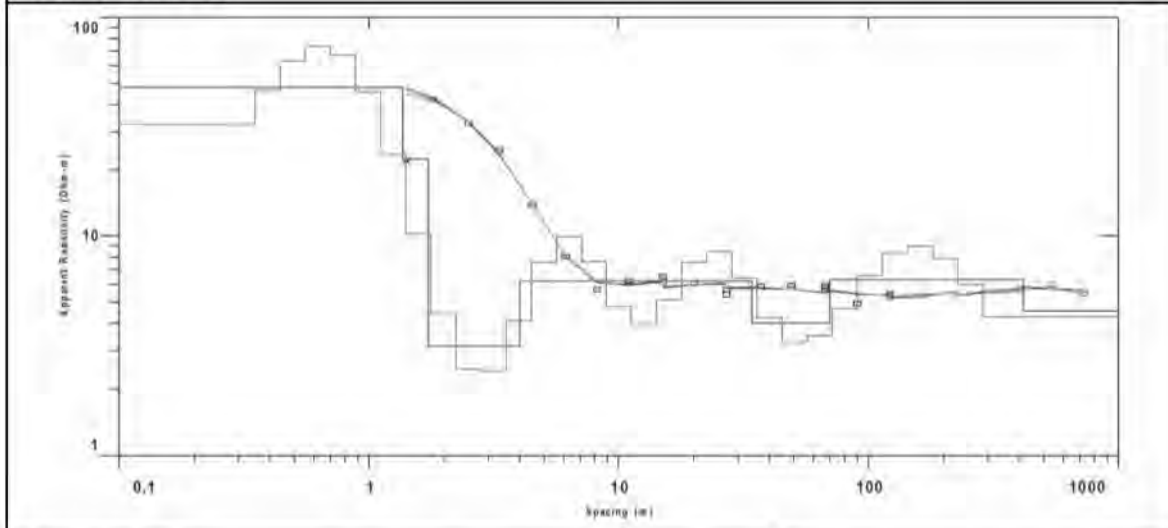
LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

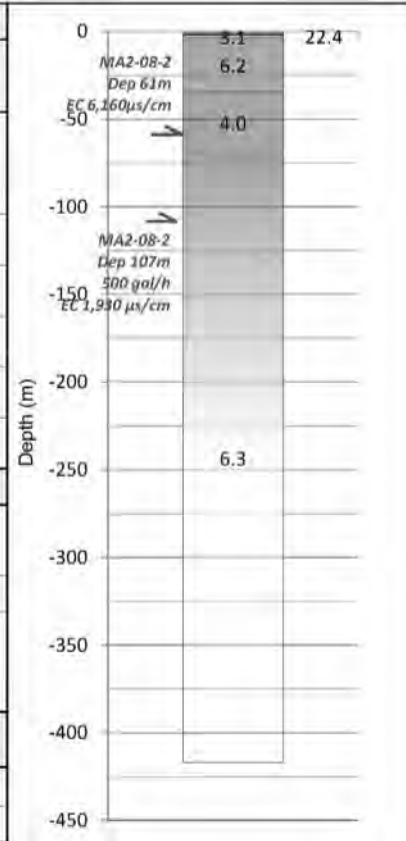
Village ID	MA2-08	Survey Date	26/06/2015
Village	Nyaungwum	Coordinate	X : 755,305
Township	Myingyan	(WGS 84 UTM Zone 46N)	Y : 2,403,440
Region	Mandalay	Elevation (m)	Z : 106

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	47.9	1.4	-1.4	Top Soil
2nd	22.4	0.4	-1.7	
3rd	3.1	2.3	-4.0	Alluvium deposit (Clay - Silt)
4th	6.2	30.2	-34.2	Alluvium deposit (Silt)
5th	4.0	35.8	-70.0	Irrawaddy Formation (Clay)
6th	6.3	346.8	-416.8	Irrawaddy Formation (Silt)
7th	4.5			Irrawaddy Formation (Clay)



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Estimated SWL( GL-m)	Remarks:
	Depth (m)	-	
	Thickness (m)	-	
	Resistivity (Ω-m)	-	

Results of Evaluation

Estimated Drilling Depth(m)	-	Possibility / Priority	D : No possibility
-----------------------------	---	------------------------	--------------------

Remarks  
 Resistivity value indicates less than 10 Ohm-m up to deep part.  
 It suggests existence of clay or the aquifer that has bad water quality.  
 Therefore, recommended drilling point is not decided.

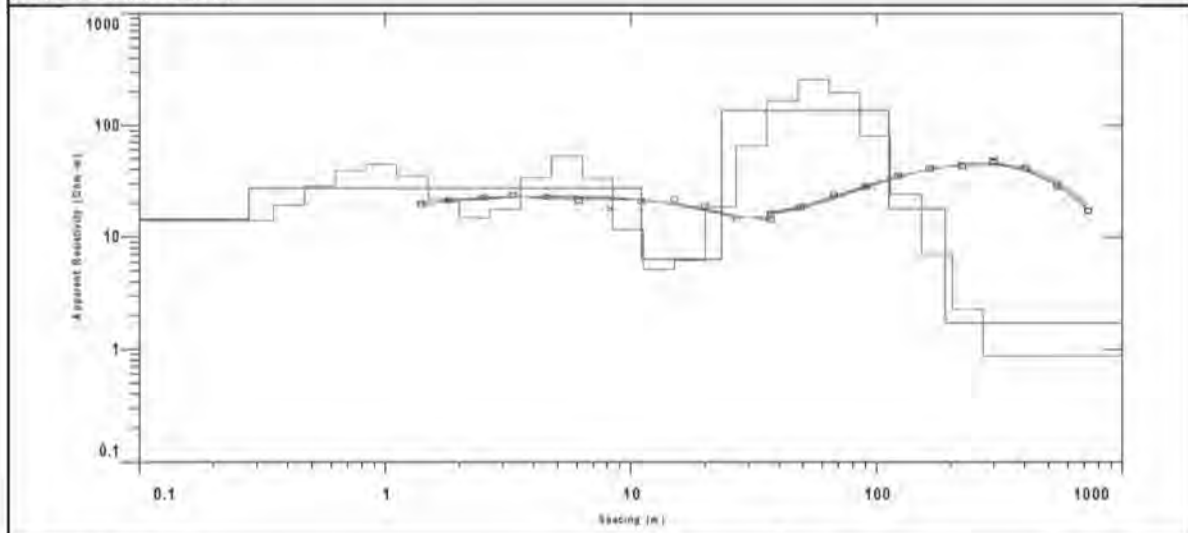
LEGEND

~ 50-Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

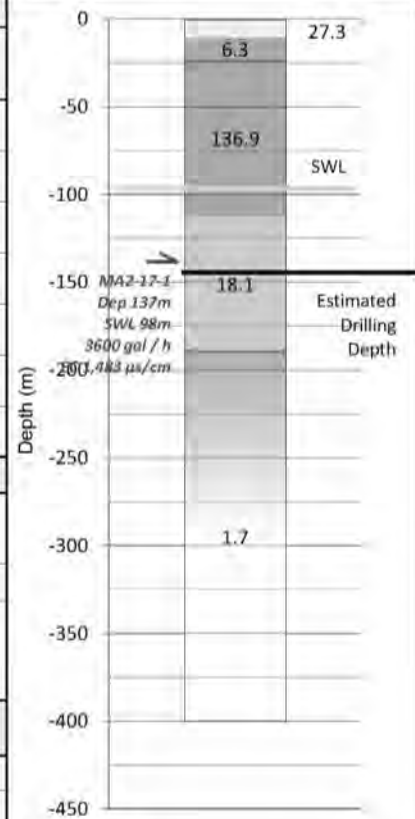
Village ID	MA2-17	Survey Date	27/06/2015
Village	Chaungson(La)	Coordinate	X : 735,402
Township	Taungtha	(WGS 84 UTM Zone 46N)	Y : 2,354,865
Region	Mandalay	Elevation (m)	Z : 169

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	14.4	0.3	-0.3	Top Soil
2nd	27.3	10.7	-11.0	Top Soil / Irrawaddy
3rd	6.3	12.3	-23.3	Irrawaddy formation (Clay : Unsaturated)
4th	136.9	89.0	-112.3	Irrawaddy formation (Sand with silicified wood?)
5th	18.1	77.1	-189.5	Irrawaddy formation (Sand : Saturated)
6th	1.7			Irrawaddy formation (Clay)
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand (lr)	Estimated SWL( GL-m)	98 m
	Depth (m)	112 - 189m	Remarks:	
	Thickness (m)	>25m		
	Resistivity (Ω-m)	18.1		

Results of Evaluation

Estimated Drilling Depth(m)	140 m	Possibility / Priority	A : High Priority 3
-----------------------------	-------	------------------------	---------------------

Remarks

Drilling depth is decided by existing tube well.

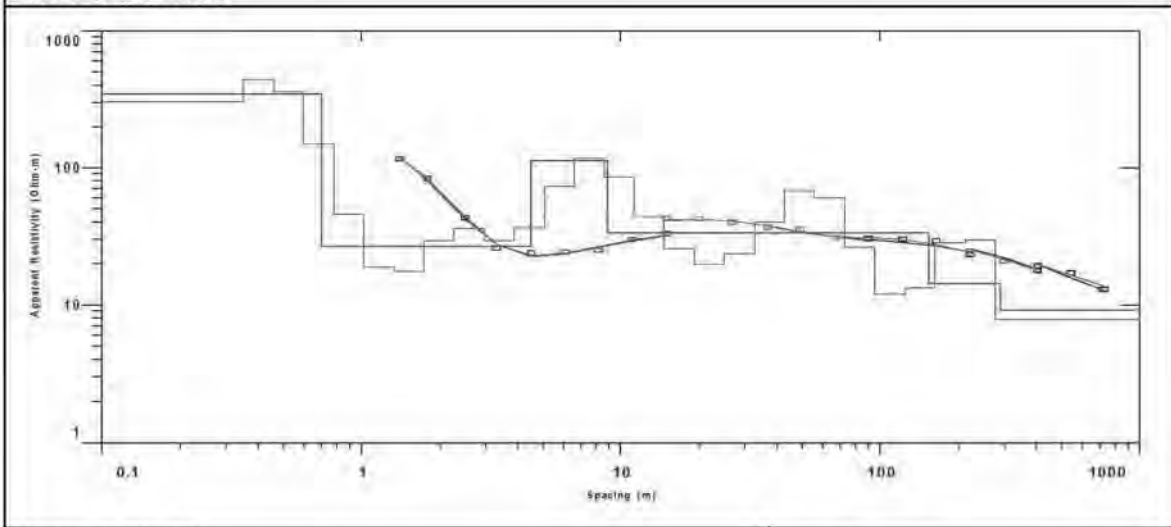
LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

Village ID	MA2-19	Survey Date	27/06/2015
Village	Tharzi	Coordinate	X : 740,013
Township	Taungtha	(WGS 84 UTM Zone 46N)	Y : 2,346,810
Region	Mandalay	Elevation (m)	Z : 192

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	344.4	0.7	-0.7	Top Soil
2nd	26.7	3.8	-4.5	Top Soil
3rd	112.7	4.4	-8.9	Irrawaddi formation (Sand : Unsaturated)
4th	33.3	145.3	-154.2	Irrawaddi formation (Sand - Silt : Unsaturated)
5th	14.3	136.9	-291.1	Irrawaddi formation (Sand - Silt : Saturated)
6th	9.2			Irrawaddi formation (Clay)
7th				

Estimation Results of Hydrogeological Information

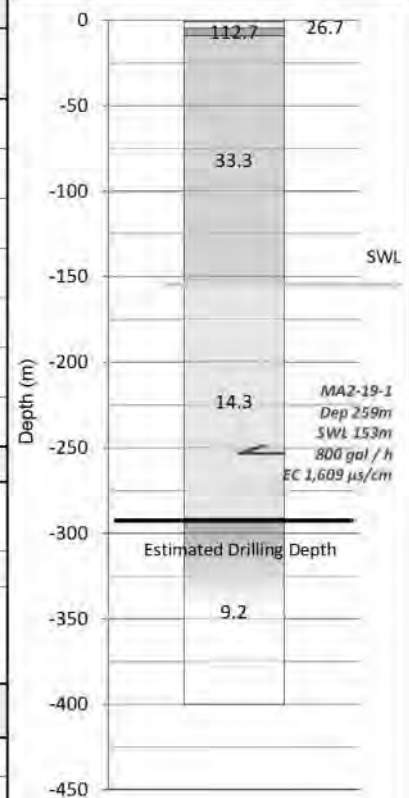
Target Aquifer	Lithology	Sand - Silt (lr)	Estimated SWL( GL-m)	154 m
	Depth (m)	154 - 291m	Remarks:	
	Thickness (m)	>140m		
	Resistivity (Ω-m)	18,6		

Results of Evaluation

Estimated Drilling Depth(m)	290 m	Possibility / Priority	C : Low-Medium Priority 4
-----------------------------	-------	------------------------	---------------------------

Remarks

From existing borehole, it is expected that capacity of target aquifers is low. Therefore, it is recommended that drilling depth is set to deep part as possible.



LEGEND

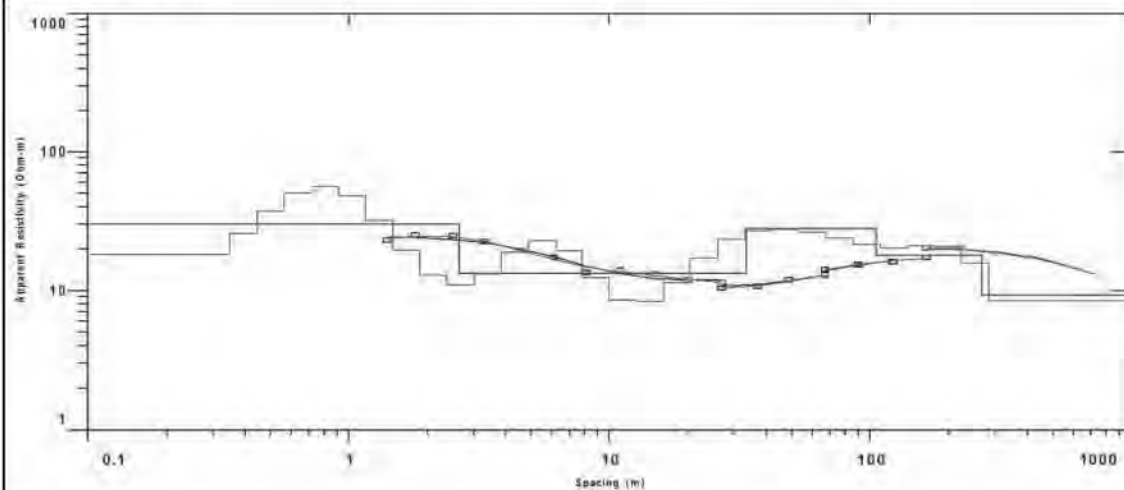
~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m



Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

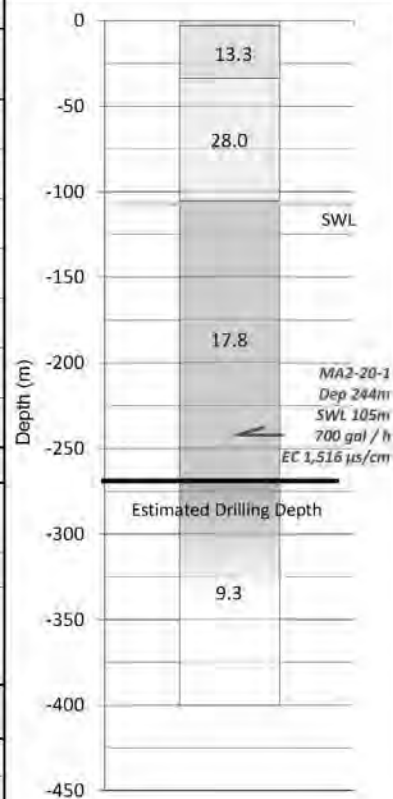
Village ID	MA2-20	Survey Date	26/06/2015
Village	Kanaye	Coordinate	X : 740,583
Township	Taungtha	(WGS 84 UTM Zone 46N)	Y : 2,349,003
Region	Mandalay	Elevation (m)	Z : 181

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	29.8	2.7	-2.7	Top Soil
2nd	13.3	30.9	-33.6	Irrawaddi formation (Clay -Silt : Unsaturated)
3rd	28.0	71.6	-105.2	Irrawaddi formation (Sand - Silt : Unsaturated)
4th	17.8	162.4	-267.6	Irrawaddi formation (Sand : Saturated)
5th	9.3			Irrawaddi formation (Silt : Saturated)
6th				
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand (Ir)	Estimated SWL (GL-m)	105 m
	Depth (m)	105 - 268m	Remarks:	
	Thickness (m)	>160m		
	Resistivity (Ω-m)	17.8		

Results of Evaluation

Estimated Drilling Depth(m)	265 m	Possibility / Priority	C : Low-Medium Priority 4
-----------------------------	-------	------------------------	---------------------------

Remarks

From existing borehole, it is expected that capacity of target aquifers is low. Therefore, it is recommended that drilling depth is set to deep part as possible.

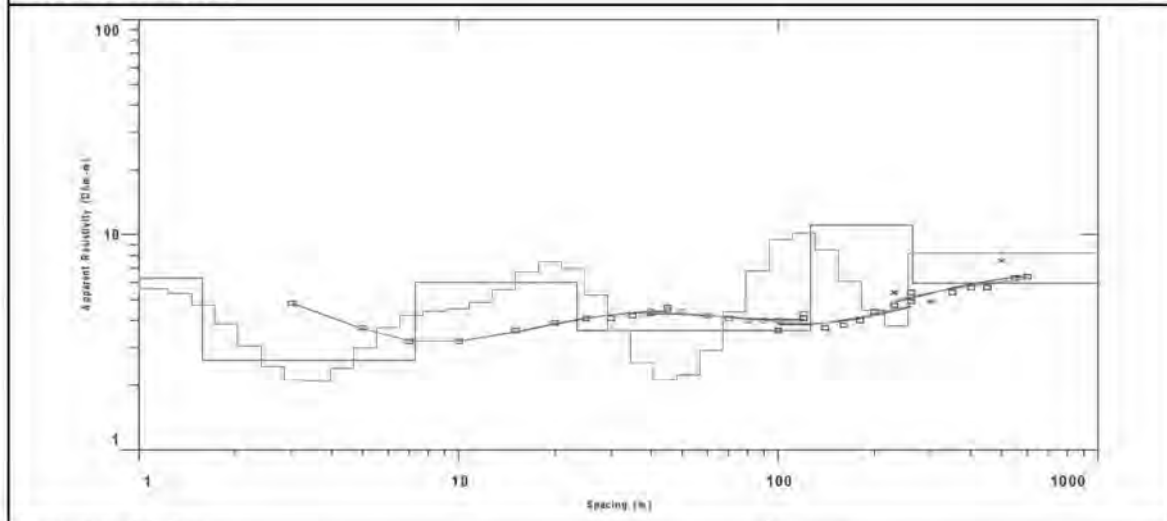
LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

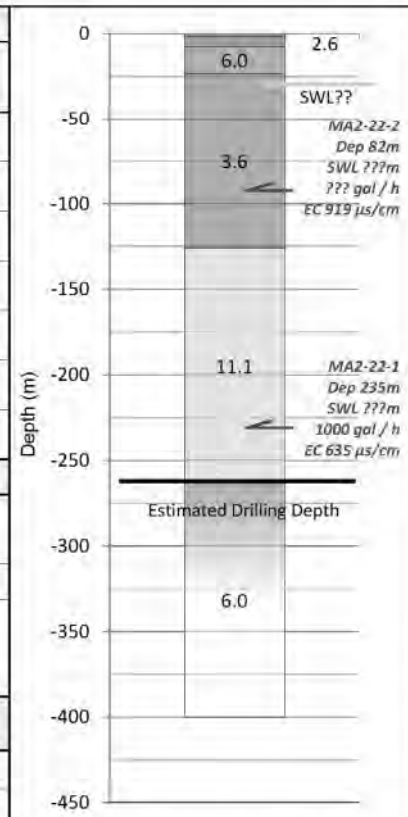
Village ID	MA2-22	Survey Date	30/05/2015
Village	Oakpo	Coordinate	X : 826,979
Township	Yamethin	(WGS 84 UTM Zone 46N)	Y : 2,270,938
Region	Mandalay	Elevation (m)	Z : 187

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	6.3	1.6	-1.6	Top Soil
2nd	2.6	5.7	-7.3	Top Soil / Alluvium
3rd	6.0	16.1	-23.4	Allvium Deposit (Silt : Unsaturated)
4th	3.6	102.5	-125.9	Irrawaddi formation (Silt - Clay : Saturated)
5th	11.1	137.3	-263.1	Irrawaddi formation (Silt - Sand : Saturated)
6th	6.0			Irrawaddi formation (Silt : Saturated)
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Silt - Sand (lr)	Estimated SWL( GL-m)	30m (Confined?)
	Depth (m)	126 - 263m	Remarks:	
	Thickness (m)	>100m		
	Resistivity (Ω-m)	11.1		

Results of Evaluation

Estimated Drilling Depth(m)	260 m	Possibility / Priority	C : Low-Medium Priority 4
-----------------------------	-------	------------------------	---------------------------

Remarks

From existing borehole, it is expected that capacity of target aquifers is low. Therefore, it is recommended that drilling depth is set to deep part as possible.

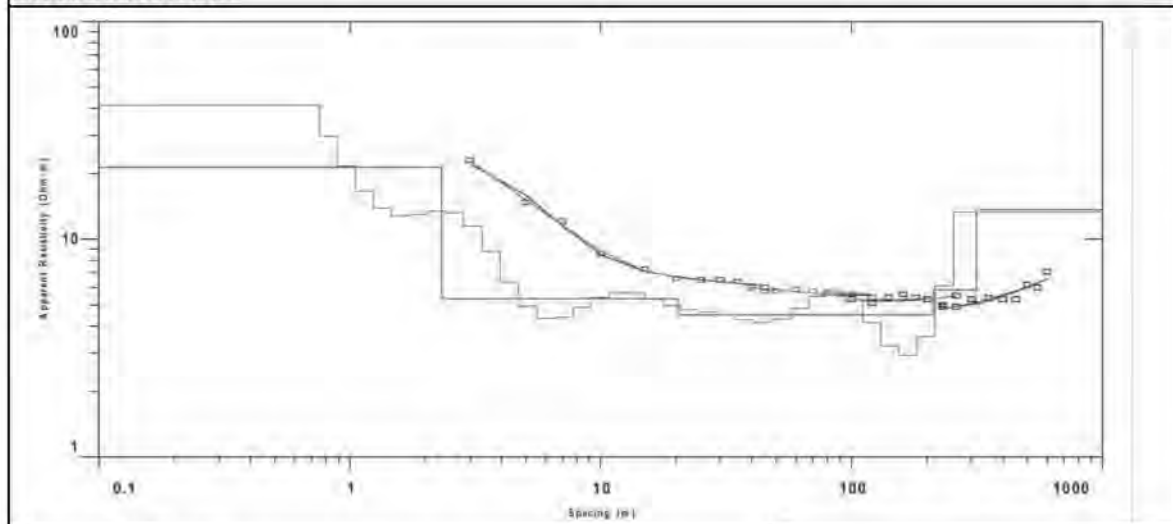
LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

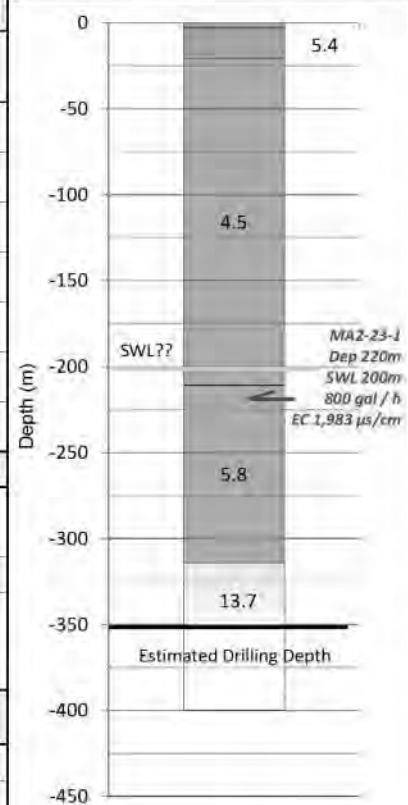
Village ID	MA2-23	Survey Date	30/05/2015
Village	Kangyi	Coordinate	X : 828,886
Township	Yamethin	(WGS 84 UTM Zone 46N)	Y : 2,246,238
Region	Mandalay	Elevation (m)	Z : 214

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	21.4	2.3	-2.3	Top Soil
2nd	5.4	18.0	-20.3	Alluvium Deposit?
3rd	4.5	190.5	-210.7	Irrawaddi formation (Clay)
4th	5.8	103.2	-313.9	Irrawaddi formation (Silt - Clay)
5th	13.7			Irrawaddi formation (Silt - Sand)
6th				
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Silt - Sand (lr)	Estimated SWL( GL-m)	200 m
	Depth (m)	>314m	Remarks:	
	Thickness (m)	>35m		
	Resistivity (Ω-m)	13.7		

Results of Evaluation

Estimated Drilling Depth(m)	350 m	Possibility / Priority	C : Low-Medium Priority 3
-----------------------------	-------	------------------------	---------------------------

Remarks

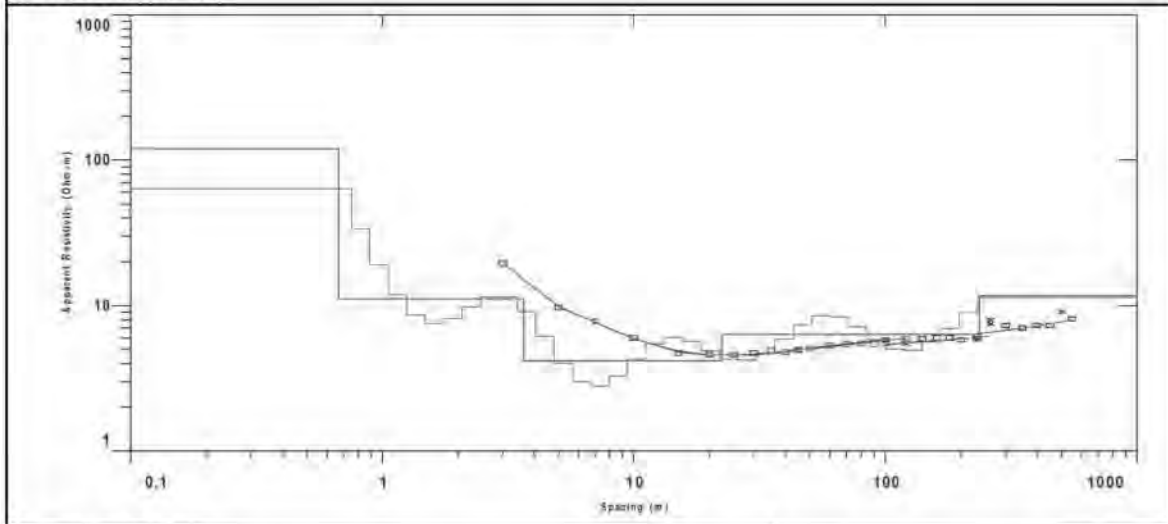
LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

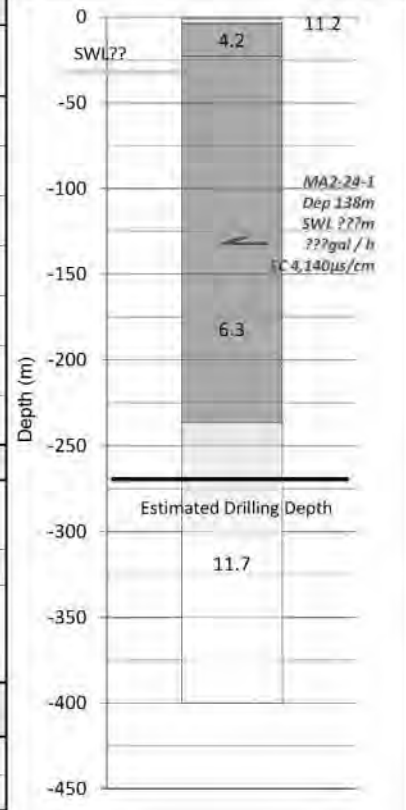
Village ID	MA2-24	Survey Date	29/05/2015
Village	Htanekan	Coordinate	X : 804,460
Township	Pyawbwe	(WGS 84 UTM Zone 46N)	Y : 2,275,571
Region	Mandalay	Elevation (m)	Z : 230

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	119.4	0.7	-0.7	Top Soil
2nd	11.2	3.0	-3.6	Top Soil
3rd	4.2	18.8	-22.4	Irrawaddi formation (Clay)
4th	6.3	213.8	-236.2	Irrawaddi formation (Clay - Silt)
5th	11.7			Irrawaddi formation (Silt - Sand)
6th				
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Silt - Sand (lr)	Estimated SWL( GL-m)	30 m
	Depth (m)	>236m	Remarks:	
	Thickness (m)	>35m		
	Resistivity (Ω-m)	11.7		

Results of Evaluation

Estimated Drilling Depth(m)	270 m	Possibility / Priority	C : Low-Medium Priority 4
-----------------------------	-------	------------------------	---------------------------

Remarks

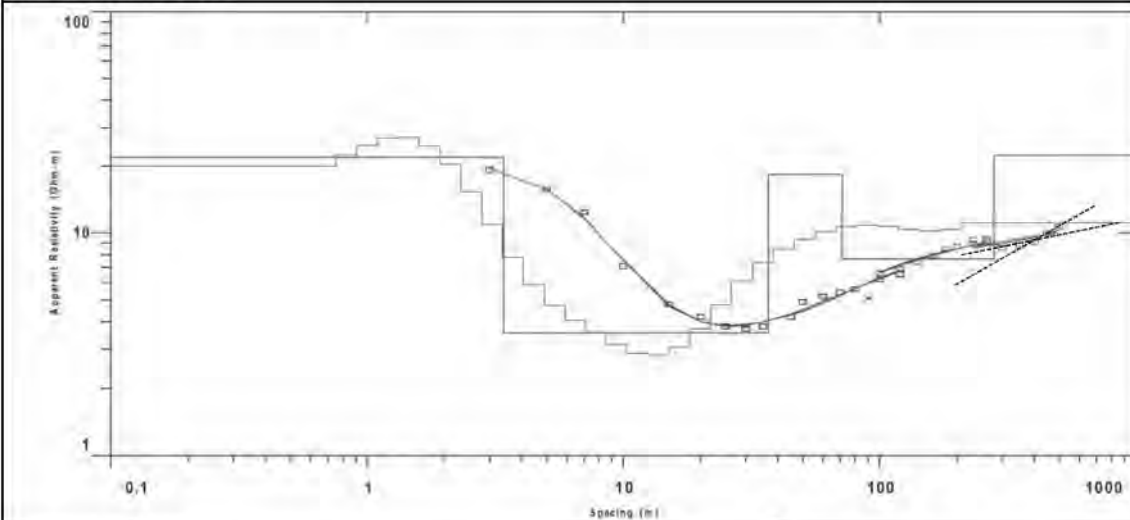
LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

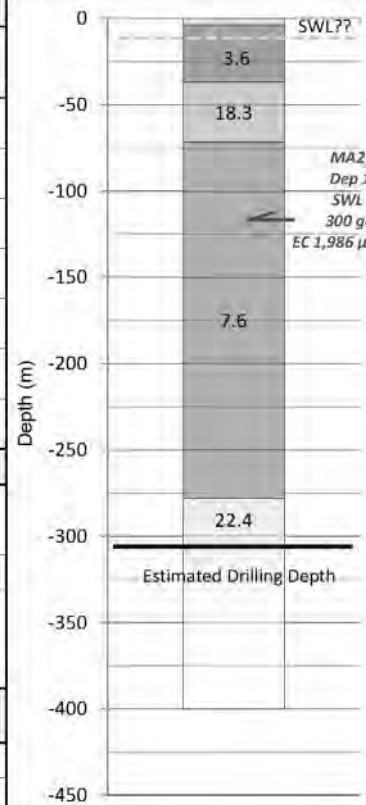
Village ID	MA2-25	Survey Date	29/05/2015
Village	Waryonesu	Coordinate	X : 804,970
Township	Pyawbwe	(WGS 84 UTM Zone 46N)	Y : 2,275,449
Region	Mandalay	Elevation (m)	Z : 226

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	21.9	3.4	-3.4	Top Soil
2nd	3.6	33.4	-36.8	Irrawaddy formation (Clay)
3rd	18.3	34.7	-71.6	Irrawaddy formation (Sand)
4th	7.6	206.3	-277.8	Irrawaddy formation (>Silt: Confined Aquifer?)
5th	22.4			Irrawaddy formation (Sand : Saturated)
6th				
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand (Ir)	Estimated SWL( GL-m)	11m (Confined?)
	Depth (m)	>278m	Remarks:	
	Thickness (m)	>25m		
	Resistivity (Ω-m)	22.4		

Results of Evaluation

Estimated Drilling Depth(m)	305 m	Possibility / Priority	A : High Priority 1
-----------------------------	-------	------------------------	---------------------

Remarks

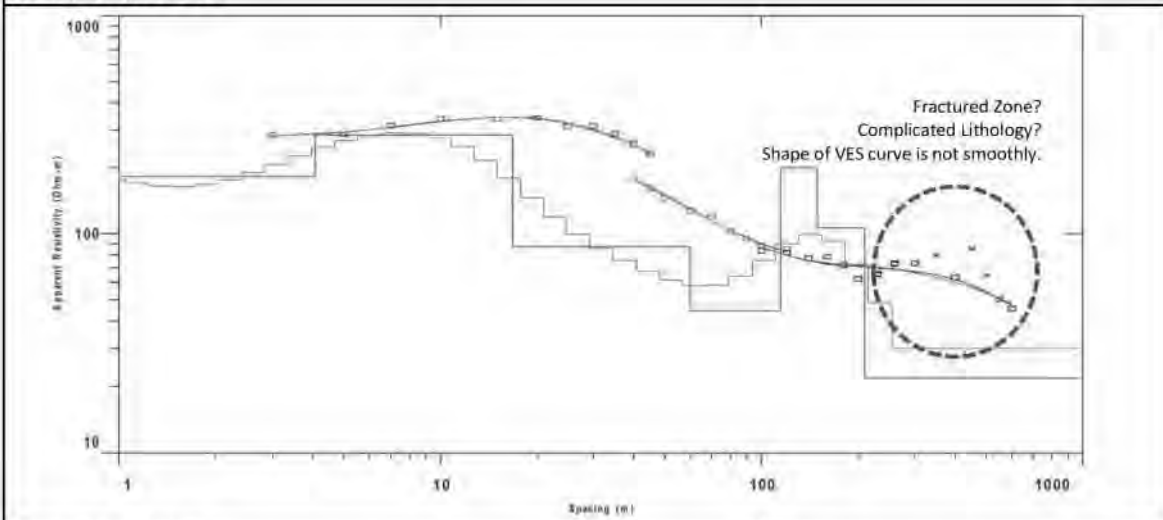
LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

### Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

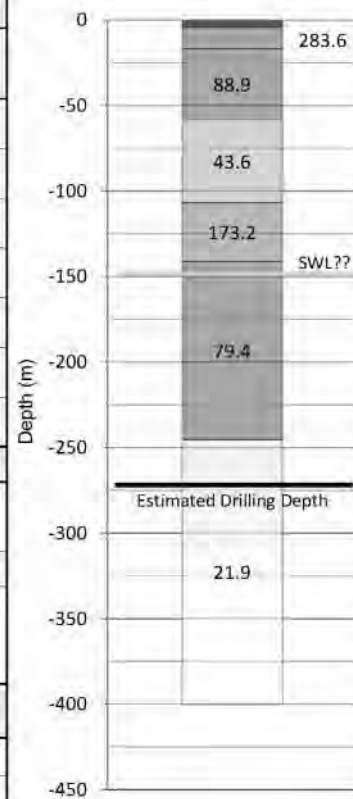
Village ID	MA2-26	Survey Date	26/05/2015
Village	Talkone	Coordinate	X : 721,119
Township	Nyaungoo	(WGS 84 UTM Zone 46N)	Y : 2,347,365
Region	Mandalay	Elevation (m)	Z : 248

#### Result of Inversion



#### Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	182.2	4.0	-4.0	Top Soil
2nd	283.6	12.6	-16.6	Irrawaddy formation (Sand with Gravel?)
3rd	88.9	41.5	-58.1	Irrawaddy formation (Sand with Gravel?)
4th	43.6	48.8	-106.9	Irrawaddy formation (Silt with Gravel?)
5th	173.2	34.4	-141.2	Irrawaddy formation (Sand with Gravel?)
6th	79.4	103.8	-245.0	Irrawaddy formation (Sand with Gravel?)
7th	21.9			Irrawaddy formation (Sand : Saturated?)



#### Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand? (lr)	Estimated SWL( GL-m)	150 m
	Depth (m)	>245m	Remarks:	
	Thickness (m)	>25m		
	Resistivity (Ω-m)	21.9		

#### Results of Evaluation

Estimated Drilling Depth(m)	275 m	Possibility / Priority	A : High Priority 2
-----------------------------	-------	------------------------	---------------------

#### Remarks

Drilling depth is estimated from VES(MA2-27) which has a similar situation of geological feature.

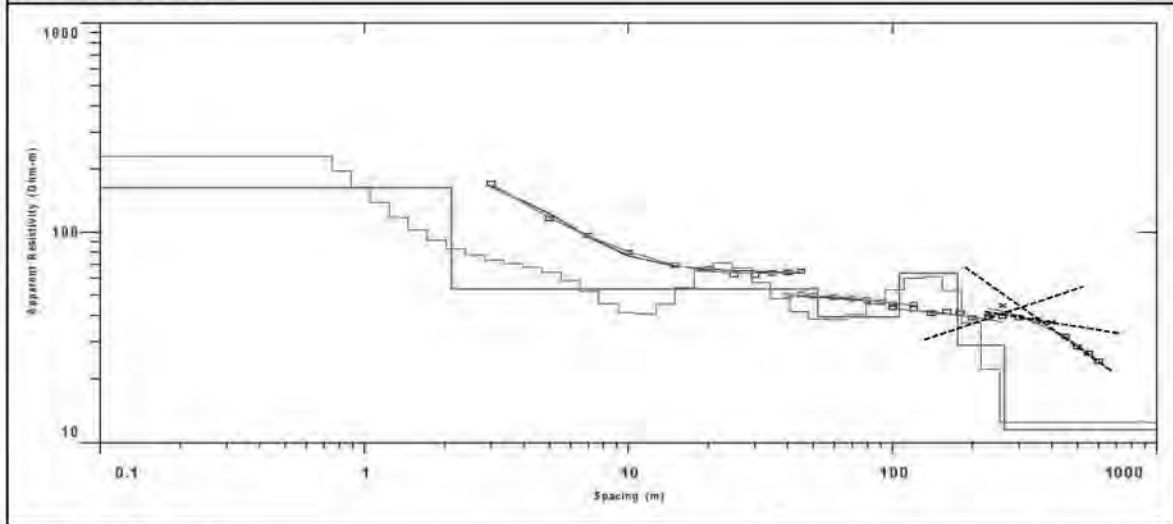
LEGEND			
	~ 5Ω-m		~ 30Ω-m
	~ 10Ω-m		~ 50Ω-m
	~ 15Ω-m		~ 100Ω-m
	~ 20Ω-m		>100Ω-m



Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

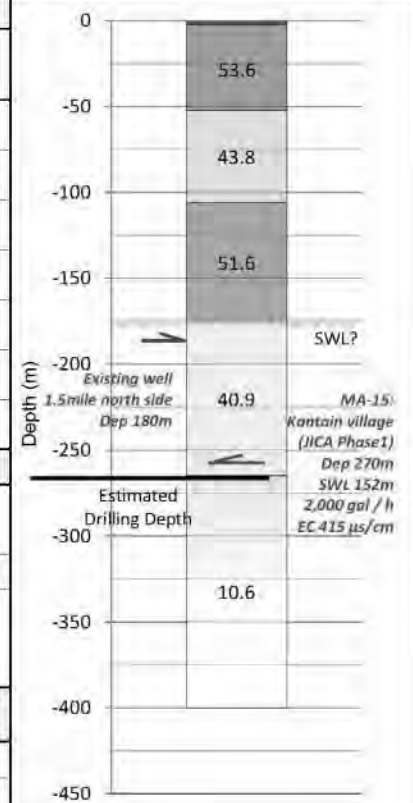
Village ID	MA2-27	Survey Date	26/05/2015
Village	Tawbyar	Coordinate	X : 726,266
Township	Nyaungoo	(WGS 84 UTM Zone 46N)	Y : 2,345,916
Region	Mandalay	Elevation (m)	Z : 304

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	162.5	2.1	-2.1	Top Soil
2nd	53.6	49.9	-52.0	Irrawaddy formation (Sand - Silt : Unsaturated)
3rd	43.8	53.9	-105.9	Irrawaddy formation (Silt : Unsaturated)
4th	51.6	69.7	-175.6	Irrawaddy formation (Sand : Semi saturated)
5th	40.9	89.1	-264.7	Irrawaddy formation (Sand : Saturated)
6th	10.6			Pegu Group? (Mudstone?)
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand (lr)	Estimated SWL( GL-m)	176 m
	Depth (m)	176 - 265m	Remarks:	
	Thickness (m)	85m	SWL is estimated by geophysical survey.	
	Resistivity (Ω-m)	40.9		

Results of Evaluation

Estimated Drilling Depth(m)	265 m	Possibility / Priority	B : Medium Priority 3
-----------------------------	-------	------------------------	-----------------------

Remarks  
Drilling depth is estimated by existing tube well.

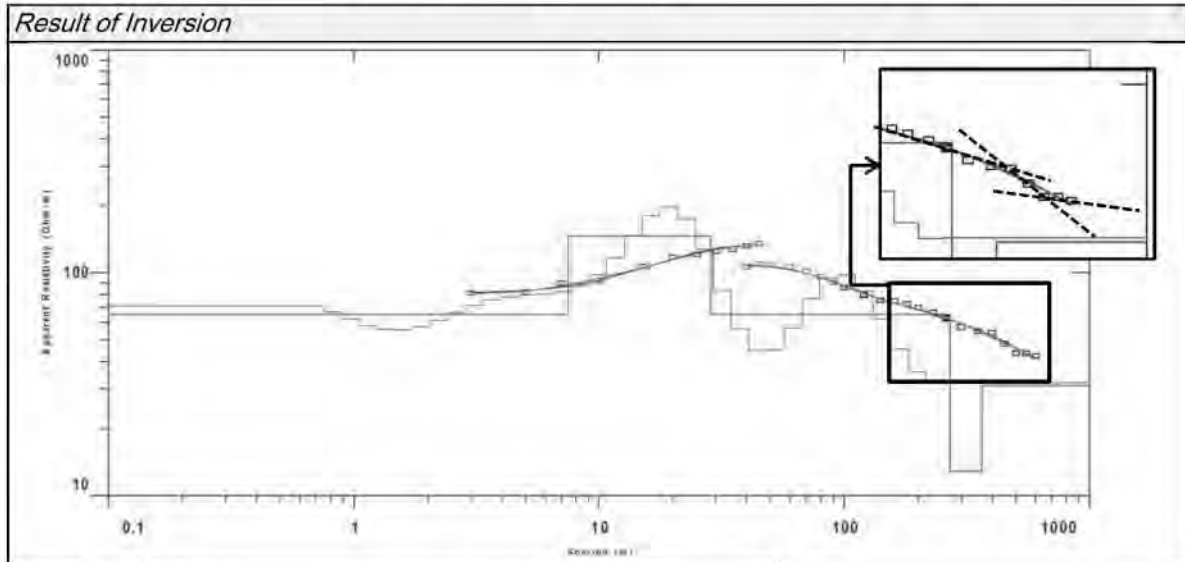
LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m



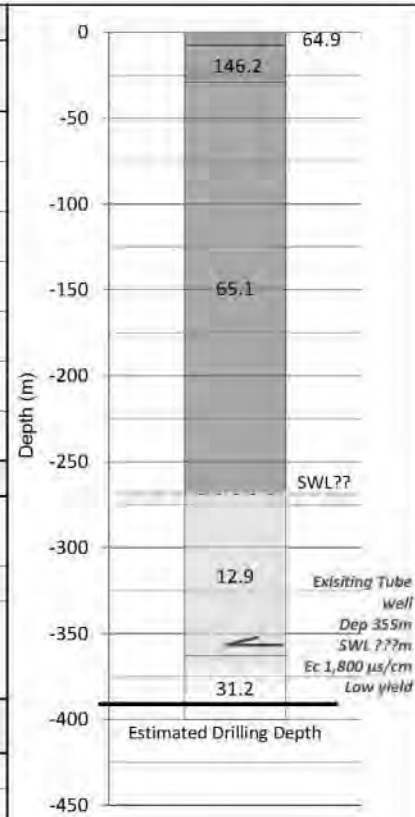
### Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

Village ID	MA2-28	Survey Date	25/05/2015
Village	Setsetyo	Coordinate	X : 721,827
Township	Nyaungoo	(WGS 84 UTM Zone 46N)	Y : 2,329,520
Region	Mandalay	Elevation (m)	Z : 442



**Resistivity Model**

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	64.9	7.4	-7.4	Top Soil
2nd	146.2	21.2	-28.6	Irrawady formation (Sand with Gravel?)
3rd	65.1	240.4	-269.0	Irrawady formation (Sand: Unsaturated)
4th	12.9	93.8	-362.9	Irrawady formation (Silt : Saturated)
5th	31.2			Irrawady formation (Sand : Saturated)
6th				
7th				



**Estimation Results of Hydrogeological Information**

Target Aquifer	Lithology	Sand (lr)	Estimated SWL( GL-m)	269 m
	Depth (m)	>363m	Remarks:	
	Thickness (m)	>28m		
	Resistivity (Ω-m)	31.2		

**Results of Evaluation**

Estimated Drilling Depth(m)	390 m	Possibility / Priority	A : High Priority 1
-----------------------------	-------	------------------------	---------------------

**Remarks**  
 From existing borehole, it is expected that capacity of target aquifers is low.  
 Therefore, it is recommended that drilling depth is set to deep part as possible.

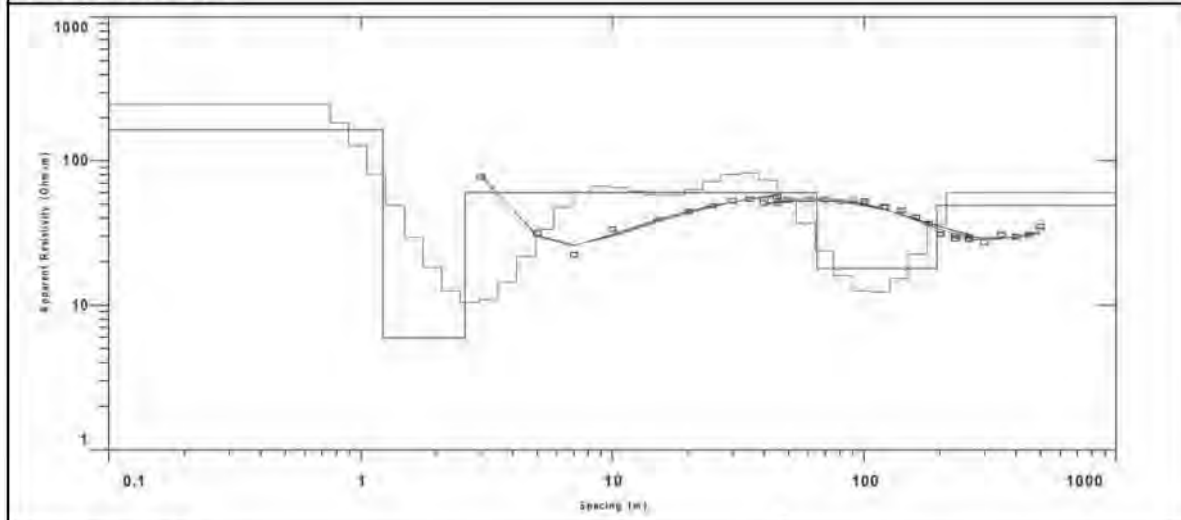
**LEGEND**

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

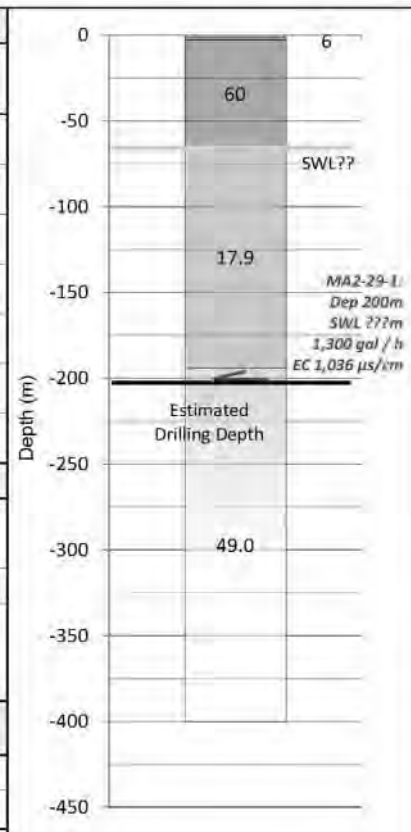
Village ID	MA2-29	Survey Date	24/05/2015
Village	Kanzauk	Coordinate	X : 709,761
Township	Nyaungoo	(WGS 84 UTM Zone 46N)	Y : 2,328,732
Region	Mandalay	Elevation (m)	Z : 351

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	164.9	1.2	-1.2	Top soil
2nd	6.0	1.4	-2.6	Top soil
3rd	60.0	62.3	-64.9	Irrawaddy formation (Sand : Unsaturated)
4th	17.9	128.9	-193.8	Irrawaddy formation (Sand - Silt : Saturated)
5th	49.0			Irrawaddy formation (Sand : Saturated)
6th				
7th				



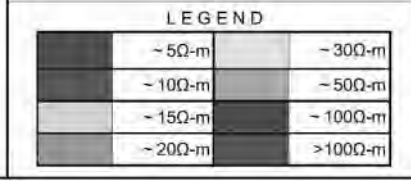
Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand - Silt (lr)	Estimated SWL (GL-m)	65 m
	Depth (m)	>65m	Remarks:	
	Thickness (m)	>135m?	SWL is estimated by Jica tube well(MA-18) and geophysical survey results.	
	Resistivity (Ω-m)	17.9-49		

Results of Evaluation

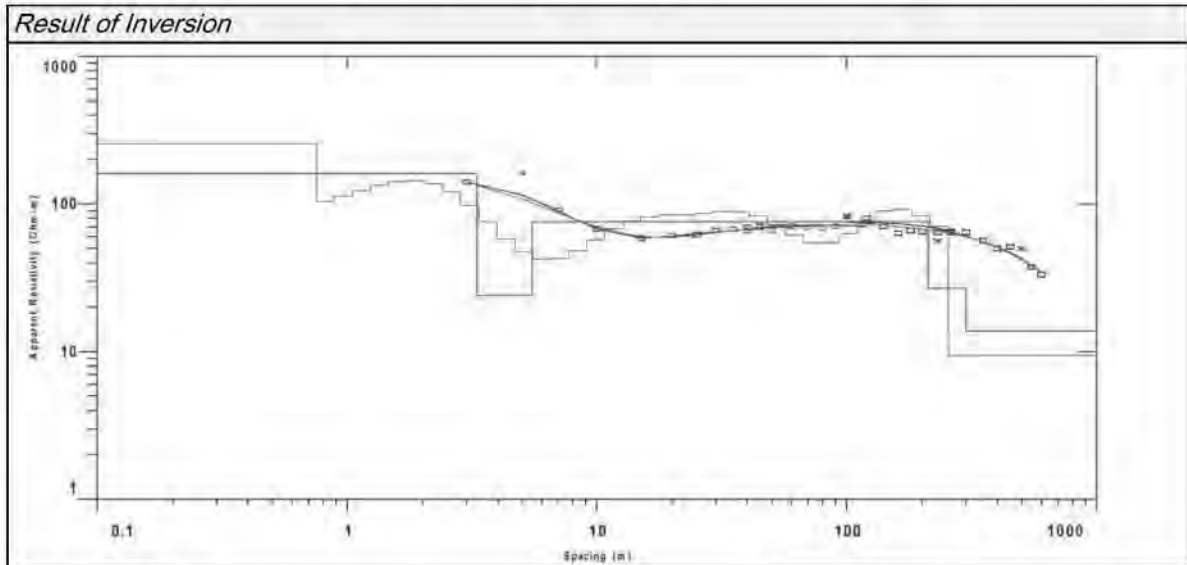
Estimated Drilling Depth(m)	200 m	Possibility / Priority	A : High Priority 2
-----------------------------	-------	------------------------	---------------------

Remarks  
Drilling depth is decided by information of existing tube well.



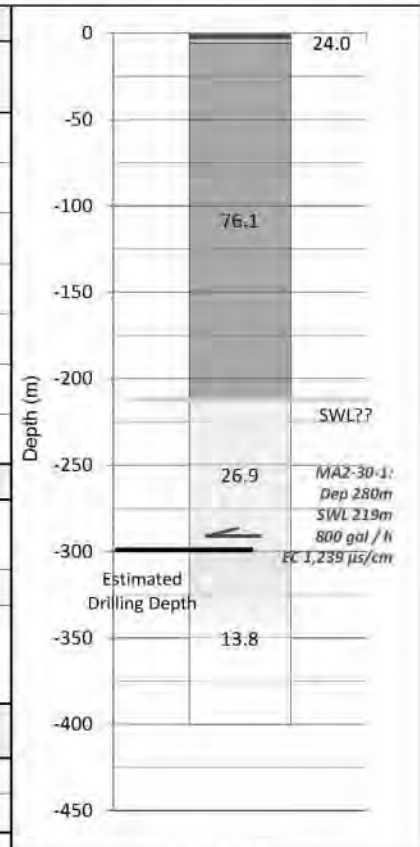
Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

Village ID	MA2-30	Survey Date	25/05/2015
Village	Talbindel	Coordinate	X : 719,641
Township	Nyaungoo	(WGS 84 UTM Zone 46N)	Y : 2,332,401
Region	Mandalay	Elevation (m)	Z : 378



**Resistivity Model**

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	160.1	3.3	-3.3	Top soil
2nd	24.0	2.2	-5.5	Top soil
3rd	76.1	205.7	-211.1	Irrawaddy formation (Sand : Unsaturated)
4th	26.9	88.8	-300.0	Irrawaddy formation (Sand : Saturated)
5th	13.8			Irrawaddy formation (Silt : Saturated)
6th				
7th				



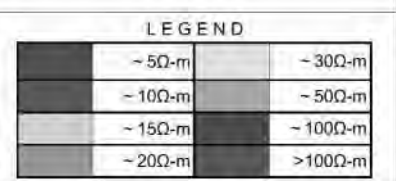
**Estimation Results of Hydrogeological Information**

Target Aquifer	Lithology	Sand (lr)	Estimated SWL( GL-m)	210 m
	Depth (m)	211-300m	Remarks:	
	Thickness (m)	90m		
	Resistivity (Ω-m)	26.9		

**Results of Evaluation**

Estimated Drilling Depth(m)	300 m	Possibility / Priority	A : High Priority 1
-----------------------------	-------	------------------------	---------------------

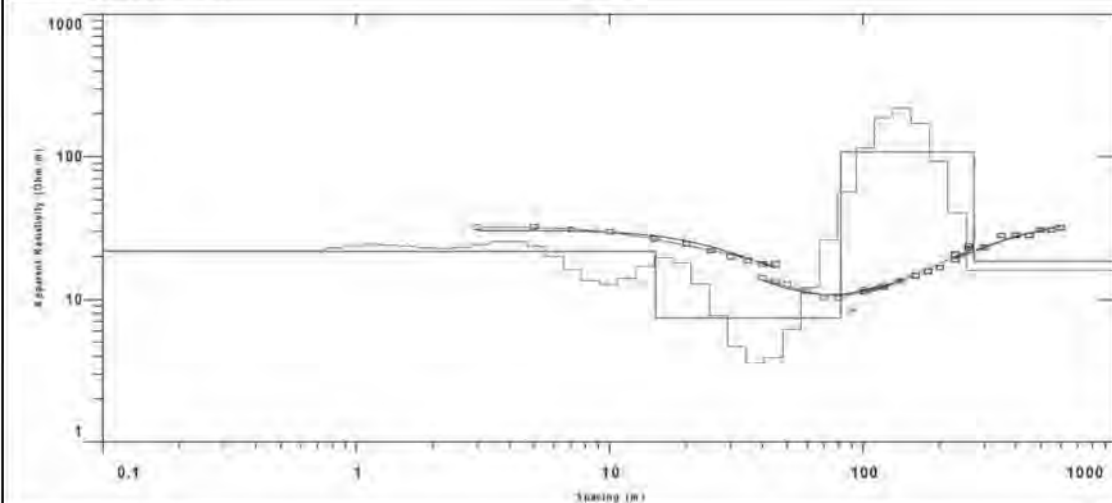
Remarks  
Drilling depth is decided by information of existing tube well.



Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

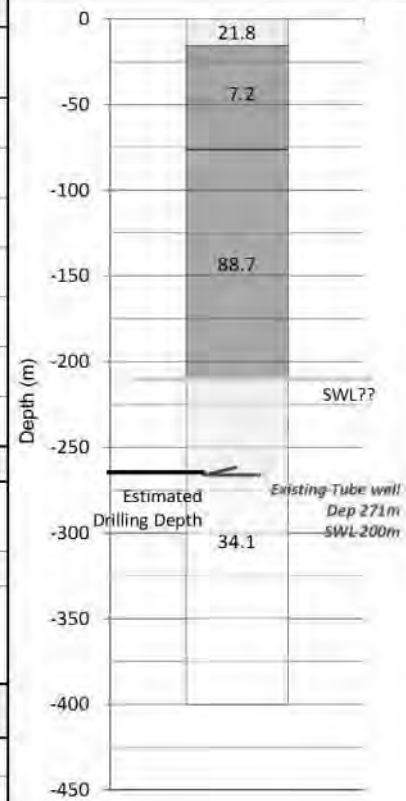
Village ID	MA2-31	Survey Date	26/05/2015
Village	Mongywettaw	Coordinate	X : 724,287
Township	Nyaungoo	(WGS 84 UTM Zone 46N)	Y : 2,337,251
Region	Mandalay	Elevation (m)	Z : 286

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	21.8	15.4	-15.4	Top Soil
2nd	7.2	60.8	-76.2	Irrawaddy formation (Clay)
3rd	88.7	133.1	-209.4	Irrawaddy formation (Sand : Unsaturated)
4th	34.1			Irrawaddy formation (Sand : Saturated)
5th				
6th				
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand (lr)	Estimated SWL( GL-m)	210 m
	Depth (m)	>210m	Remarks:	
	Thickness (m)	>60m		
	Resistivity (Ω-m)	34.1		

Results of Evaluation

Estimated Drilling Depth(m)	270 m	Possibility / Priority	A : High Priority 2
-----------------------------	-------	------------------------	---------------------

Remarks

Drilling depth is decided by information of existing tube well.

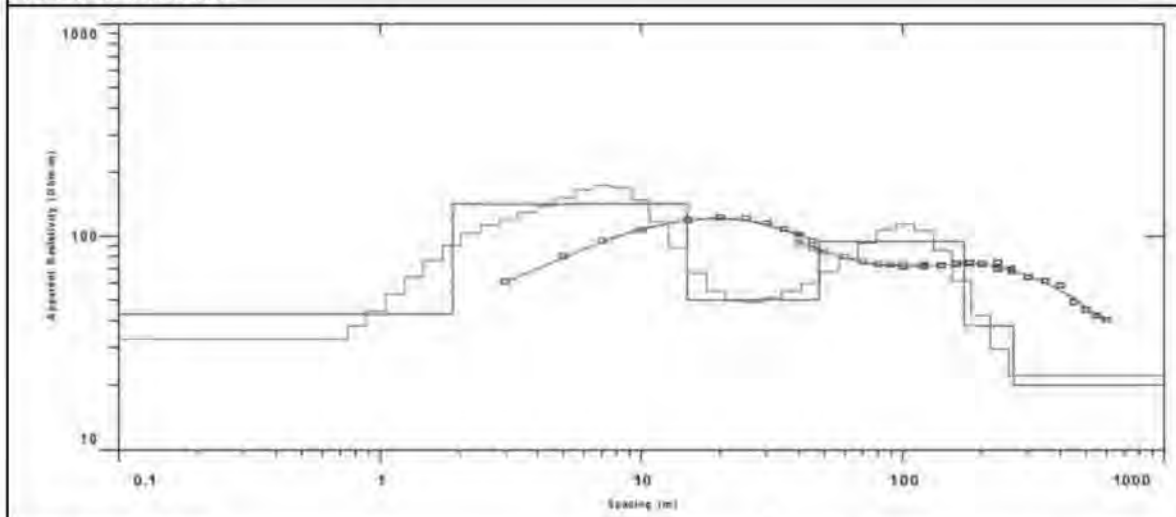
LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

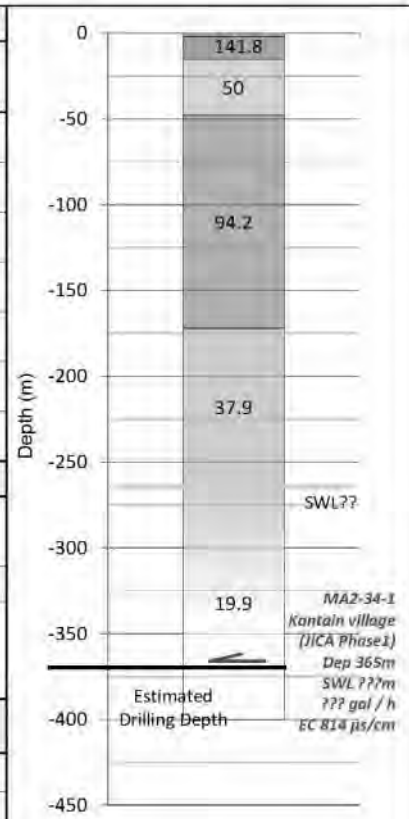
Village ID	MA2-34	Survey Date	27/05/2015
Village	Saingkan(Tetide)	Coordinate	X : 724,351
Township	Nyaungoo	(WGS 84 UTM Zone 46N)	Y : 2,328,820
Region	Mandalay	Elevation (m)	Z : 427

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	42.9	1.9	-1.9	Top Soil
2nd	141.8	13.1	-15.0	Irrawaddy formation (Sand with Gravel)
3rd	50.0	32.7	-47.7	Irrawaddy formation (Sand: Unsaturated)
4th	94.2	124.2	-171.9	Irrawaddy formation (Sand with Gravel)
5th	37.9	91.5	-263.4	Irrawaddy formation (Sand - Silt: Unsaturated)
6th	19.9			Irrawaddy formation (Sand: Saturated)
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand (Ir)	Estimated SWL( GL-m)	263 m
	Depth (m)	>263m	Remarks:	
	Thickness (m)	>150m?		
	Resistivity (Ω-m)	19.9		

Results of Evaluation

Estimated Drilling Depth(m)	370 m	Possibility / Priority	A : High Priority 1
-----------------------------	-------	------------------------	---------------------

Remarks  
Drilling depth is decided by information of existing tube well.

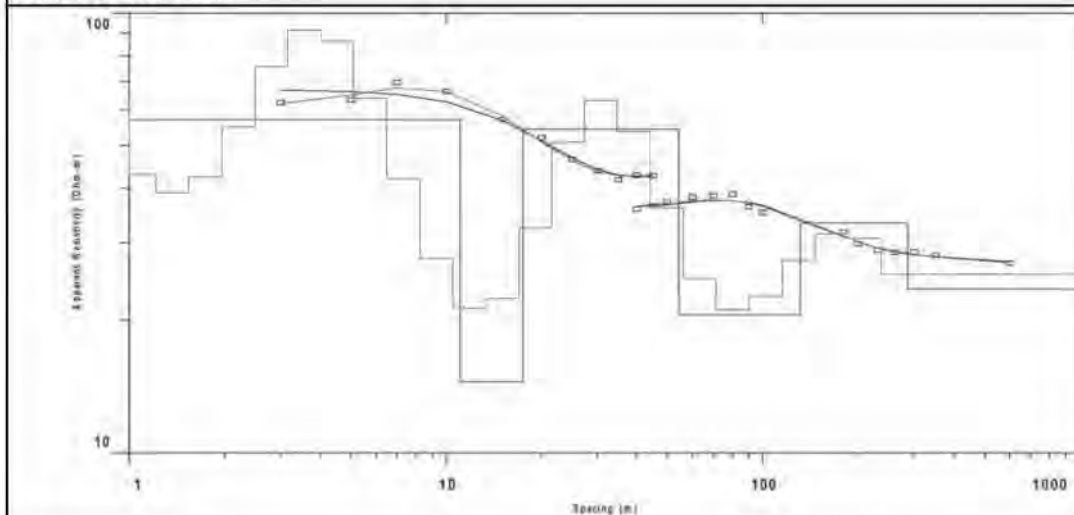
LEGEND

~ 5Ω-m	~ 300Ω-m
~ 10Ω-m	~ 500Ω-m
~ 15Ω-m	~ 1000Ω-m
~ 20Ω-m	>1000Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

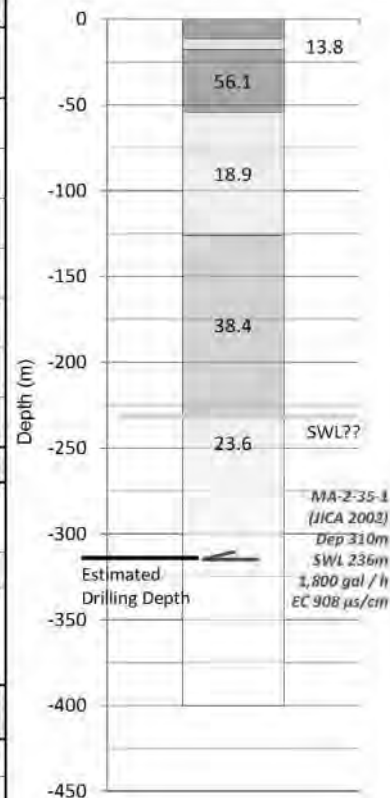
Village ID	MA2-35	Survey Date	24/05/2015
Village	Byugyi	Coordinate	X : 724,225
Township	Nyaungoo	(WGS 84 UTM Zone 46N)	Y : 2,325,313
Region	Mandalay	Elevation (m)	Z : 467

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	57.3	11.2	-11.2	Top soil
2nd	13.8	6.3	-17.5	Irrawaddy formation (Silt : Unsaturated)
3rd	56.1	36.7	-54.1	Irrawaddy formation (Sand : Unsaturated)
4th	18.9	71.6	-125.7	Irrawaddy formation (Silt : Unsaturated)
5th	38.4	105.1	-230.9	Irrawaddy formation (Sand : Semisaturated)
6th	23.6			Irrawaddy formation (Sand : Saturated)
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand (Ir)	Estimated SWL (GL-m)	230 m
	Depth (m)	>231m	Remarks:	
	Thickness (m)	>79m		
	Resistivity (Ω-m)	23.6		

Results of Evaluation

Estimated Drilling Depth(m)	310 m	Possibility / Priority	A : High Priority 1
-----------------------------	-------	------------------------	---------------------

Remarks

Drilling depth is decide by information of existing tube well.

LEGEND

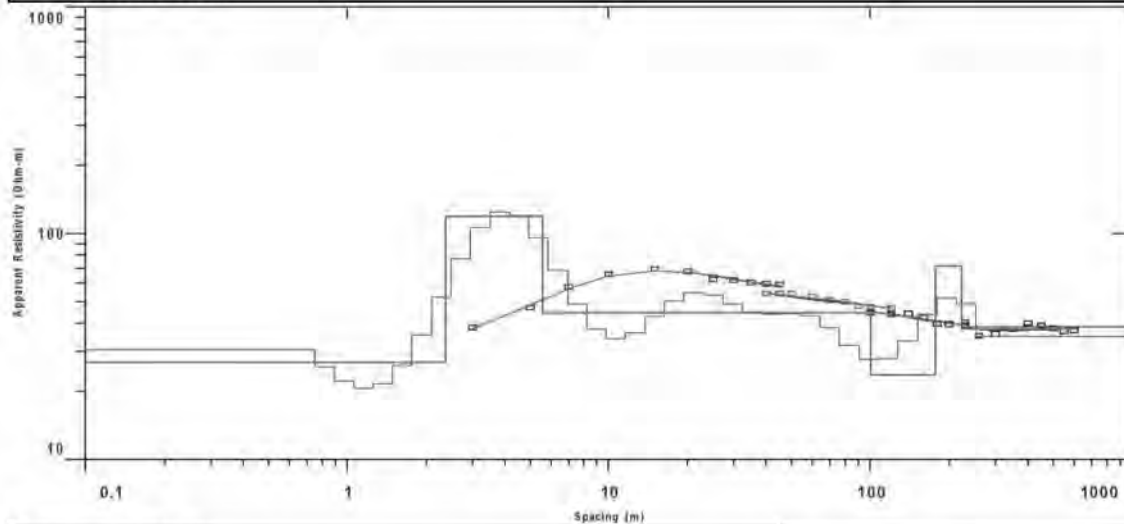
~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m



Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

Village ID	MA2-39	Survey Date	27/05/2015
Village	Thayattaw	Coordinate	X : 729,095
Township	Kyaukpadaung	(WGS 84 UTM Zone 46N)	Y : 2,325,329
Region	Mandalay	Elevation (m)	Z : 394

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	26.9	2.4	-2.4	Top Soil
2nd	118.8	3.2	-5.6	Irrawaddy formation (Sand with Gravel)
3rd	44.6	94.5	-100.1	Irrawaddy formation (Silt - Sand: Unsaturated)
4th	23.6	76.8	-176.9	Irrawaddy formation (Silt : Unsaturated)
5th	71.7	46.4	-223.2	Irrawaddy formation (Sand: Unsaturated)
6th	38.7			Irrawaddy formation (Sand Saturated)
7th				

Estimation Results of Hydrogeological Information

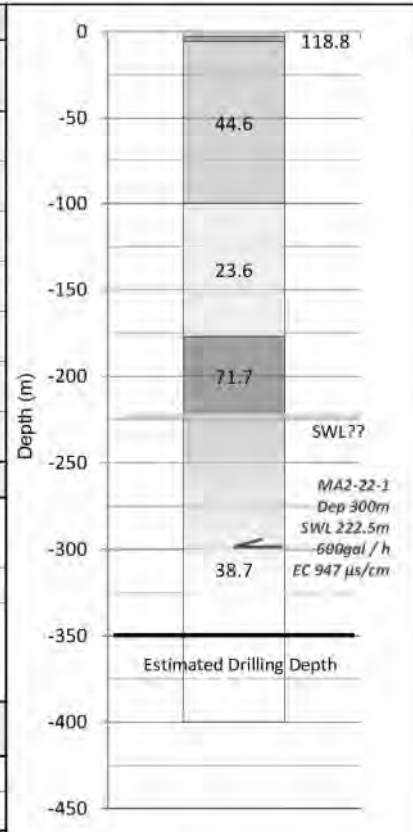
Target Aquifer	Lithology	Sand (Ir)	Estimated SWL( GL-m)	223 m
	Depth (m)	>223m	Remarks:	
	Thickness (m)	>125m		
	Resistivity (Ω-m)	38.7		

Results of Evaluation

Estimated Drilling Depth(m)	350 m	Possibility / Priority	C : Low-Medium Priority 3
-----------------------------	-------	------------------------	---------------------------

Remarks

From existing borehole, it is expected that capacity of target aquifers is low. Therefore, it is recommended that drilling depth is set to deep part as possible.



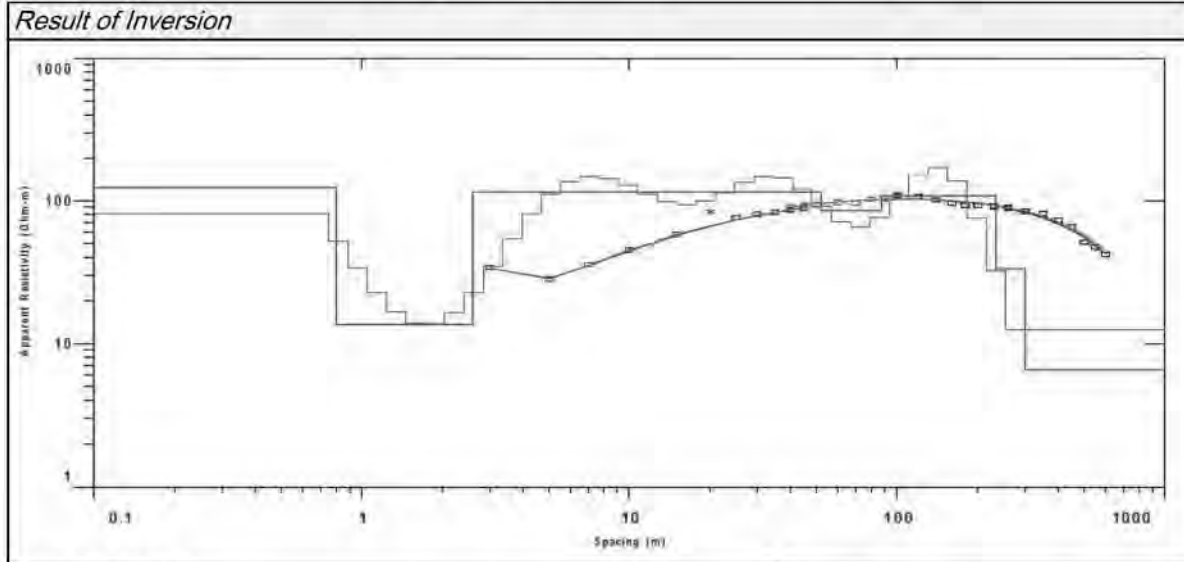
LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

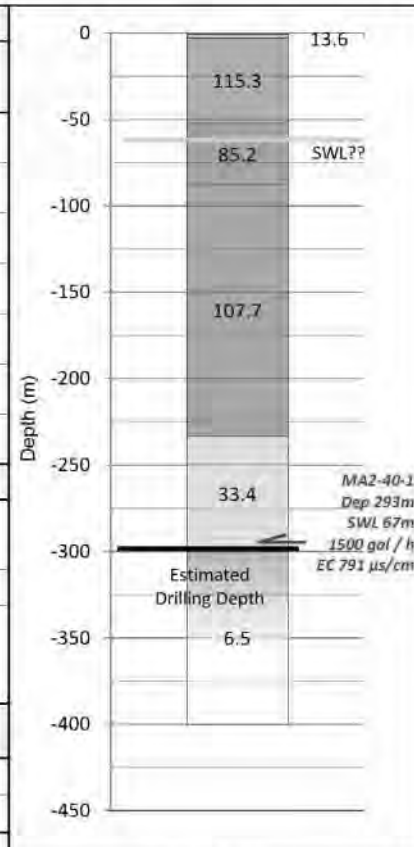


Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

Village ID	MA2-40	Survey Date	27/05/2015
Village	Nakyatkhwai	Coordinate	X : 720,311
Township	Kyaukpadaung	(WGS 84 UTM Zone 46N)	Y : 2,312,065
Region	Mandalay	Elevation (m)	Z : 433



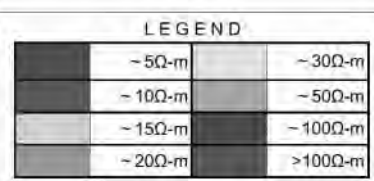
Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	122.8	0.8	-0.8	Top Soil
2nd	13.6	1.8	-2.6	Top Soil
3rd	115.3	49.4	-52.0	Irrawaddy formation (Sand with Gravel?)
4th	85.2	35.5	-87.5	Irrawaddy formation (Sand Unsaturated?)
5th	107.7	145.9	-233.4	Irrawaddy formation (Sand with Gravel?)
6th	33.4	66.3	-299.7	Irrawaddy formation (Sand: confined aquifer?)
7th	6.5			Irrawaddy formation (Clay: confined aquifer?)



Target Aquifer	Lithology	Sand (Ir)	Estimated SWL( GL-m)	67m (Confined?)
	Depth (m)	233-300	Remarks:	
	Thickness (m)	>65m		
	Resistivity (Ω-m)	33.4		

Estimated Drilling Depth(m)	295 m	Possibility / Priority	A : High Priority 2
-----------------------------	-------	------------------------	---------------------

Remarks  
Drilling depth is estimated by information of existing tube well.



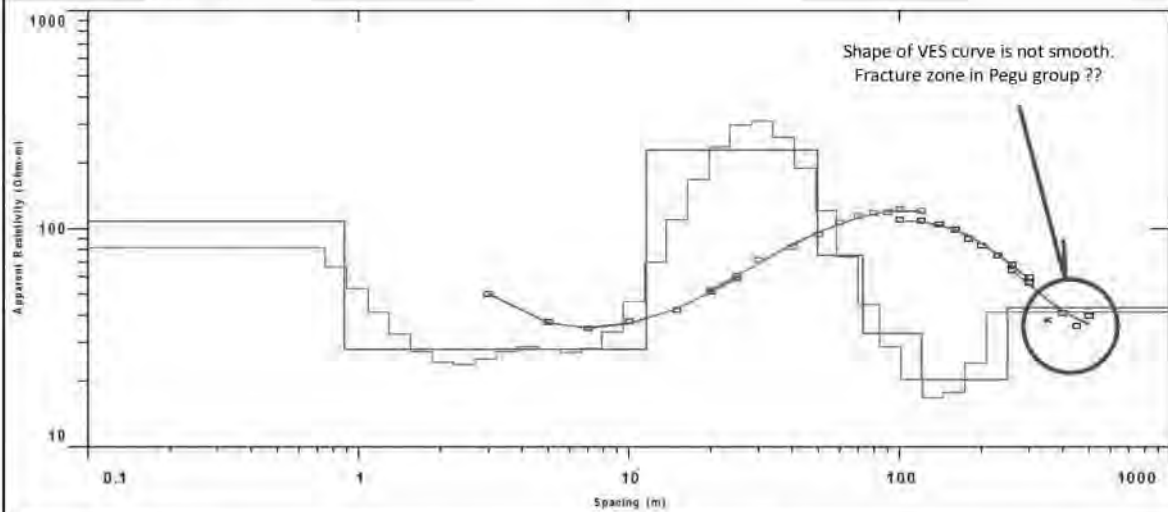
## Vertical Electric Sounding (VES) at Magway Region

MG2-01	Natkan Village
MG2-02	Thanbo(Ywarthit) Village
MG2-03	MG2-01 Natkan Village
MG2-02	Thanbo(Ywarthit) Village
MG2-03	Nyaungbinthar Village
MG2-04	Konegyi Village
MG2-05	Sainggya Village
MG2-06	Thapyaysan(N) Village
MG2-07	Shwekyaw Village
MG2-08	Leikkan Village
MG2-09	Ywarthitgyi Village
MG2-10	Kanyaygyi Village
MG2-11	Myaysoon(Ywarthit) Village
MG2-13	Yenpyay Village
MG2-14	Kyatesu(N) Village
MG2-15	Winkabar Village
MG2-16	Kyatkan Village
MG2-17	Sudat Village
MG2-18	Myaynilain Village
MG2-20	Laytinesin(S) Village
MG2-21	Tharmyar Village
MG2-22	Aungmyinthar Village
MG2-23	Ngwelay Village
MG2-24	Indaw(N) Village
MG2-26	Manawtgone Village
MG2-27	Kangyigone Village
MG2-32	Ywartharlay Village
MG2-34	Nyaunggone Village
MG2-35	Kyugyaung Village
MG2-36	Kokkohla Village
MG2-38	Htaukkyantgwin Village
MG2-39	Hlebwegyi Village
MG2-40	Yayhtwetgyi Village

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

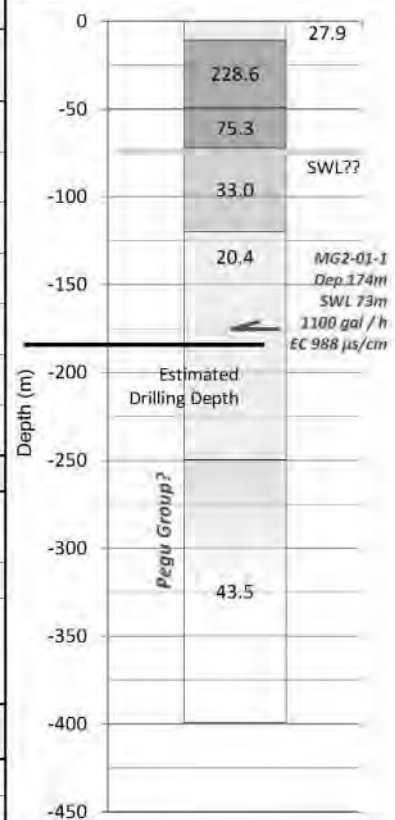
Village ID	MG2-01	Survey Date	25/05/2015
Village	Natkan	Coordinate	X : 706,551
Township	Magway	(WGS 84 UTM Zone 46N)	Y : 2,233,834
Region	Magway	Elevation (m)	Z : 167

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	108.0	0.9	-0.9	Top soil
2nd	27.9	10.7	-11.6	Irrawady formation (Silt : Unsaturated)
3rd	228.6	38.2	-49.8	Irrawady formation (Sand with Gravel)
4th	75.3	23.0	-72.8	Irrawady formation (Sand : Unsaturated)
5th	33.0	48.1	-120.8	Irrawady formation (Sand : Saturated)
6th	20.4	129.6	-250.5	Irrawady formation (Sand : Saturated)
7th	43.5			Pegu Group? (Sandstone?)



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand (lr)	Estimated SWL (GL-m)	75 m
	Depth (m)	121 - 251m	Remarks:	
	Thickness	>60m		
	Resistivity (Ω-m)	20.4		

Results of Evaluation

Estimated Drilling Depth(m)	180 m	Possibility / Priority	A : High Priority 3
-----------------------------	-------	------------------------	---------------------

Remarks

Drilling depth is estimated by information of existing tube well.

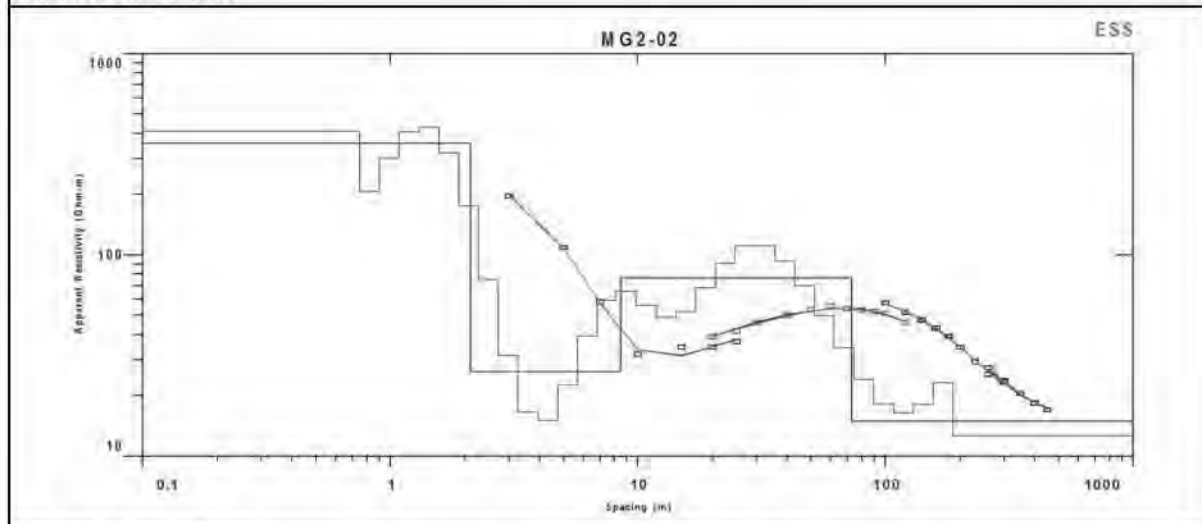
LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

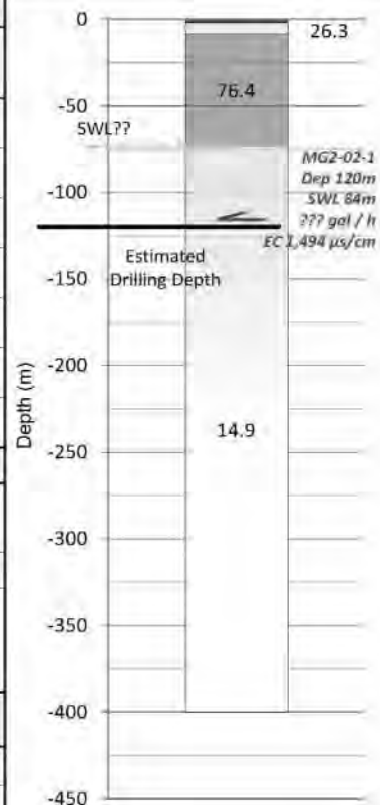
Village ID	MG2-02	Survey Date	26/05/2015
Village	Thanbo(Ywarthit)	Coordinate	X : 716,284
Township	Magway	(WGS 84 UTM Zone 46N)	Y : 2,216,242
Region	Magway	Elevation (m)	Z : 156

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	356.7	2.1	-2.1	Top Soil
2nd	26.3	6.4	-8.5	Irrawaddy formation (Silt : Unsaturated)
3rd	76.4	64.6	-73.1	Irrawaddy formation (Sand : Unsaturated)
4th	14.9			Irrawaddy formation (Sand - Silt : Saturated)
5th				
6th				
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand/ Silty Sand (lr)	Estimated SWL( GL-m)	73 m
	Depth (m)	>75m	Remarks:	
	Thickness (m)	>50m		
	Resistivity (Ω-m)	14.9		

Results of Evaluation

Estimated Drilling Depth(m)	120 m	Possibility / Priority	C : Low-Medium Priority 5
-----------------------------	-------	------------------------	---------------------------

Remarks

Drilling depth is estimated by information of existing tube well.

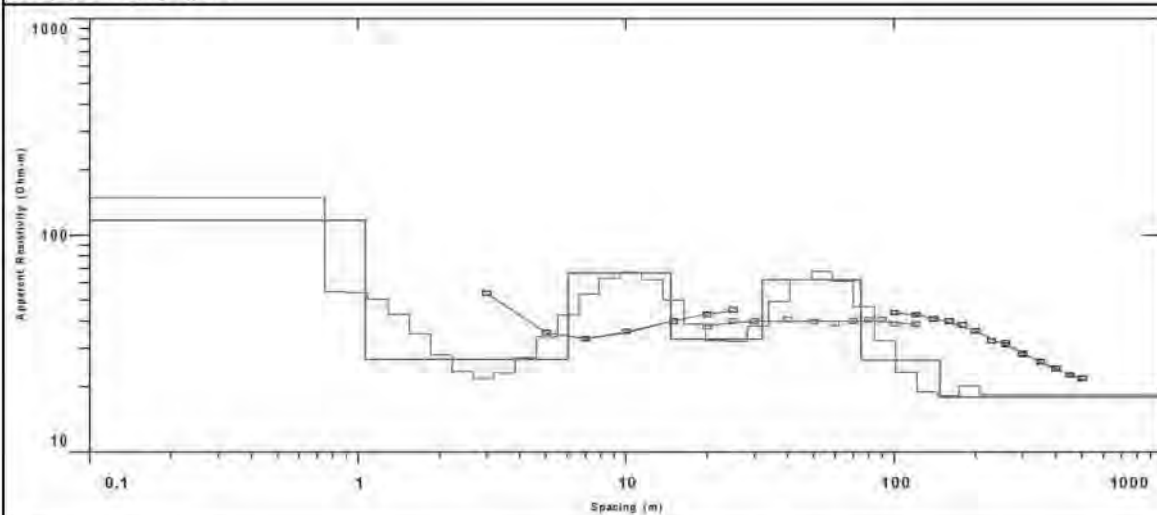
LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

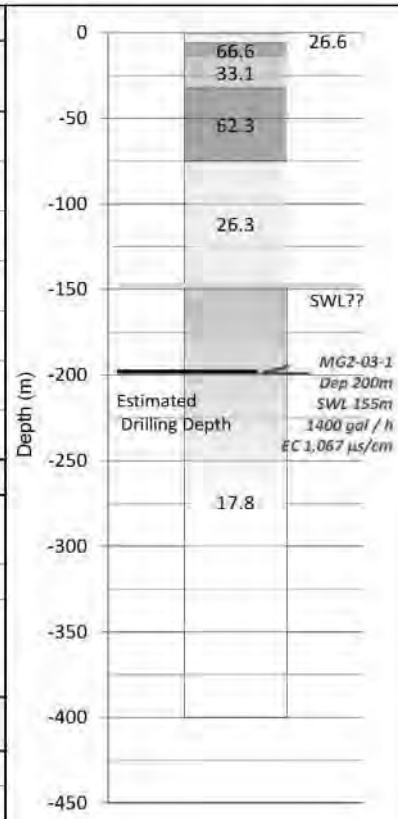
Village ID	MG2-03	Survey Date	28/05/2015
Village	Nyaungbinthar	Coordinate	X : 737,918
Township	Magway	(WGS 84 UTM Zone 46N)	Y : 2,244,076
Region	Magway	Elevation (m)	Z : 267

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	117.3	1.1	-1.1	Top Soil
2nd	26.6	5.0	-6.0	Irrawady formation (Silt : Unsaturated)
3rd	66.6	8.6	-14.6	Irrawady formation (Sand : Unsaturated)
4th	33.1	17.6	-32.2	Irrawady formation (Silt : Unsaturated)
5th	62.3	43.0	-75.2	Irrawady formation (Sand : Unsaturated)
6th	26.3	72.8	-148.0	Irrawady formation (Silt : Unsaturated)
7th	17.8			Irrawady formation (Sand : Saturated)



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand (Ir)	Estimated SWL (GL-m)	150 m
	Depth (m)	>148	Remarks:	
	Thickness (m)	>50m		
	Resistivity (Ω-m)	17.8		

Results of Evaluation

Estimated Drilling Depth(m)	200 m	Possibility / Priority	A : High Priority 2
-----------------------------	-------	------------------------	---------------------

Remarks

Drilling depth is estimated by information of existing tube well.

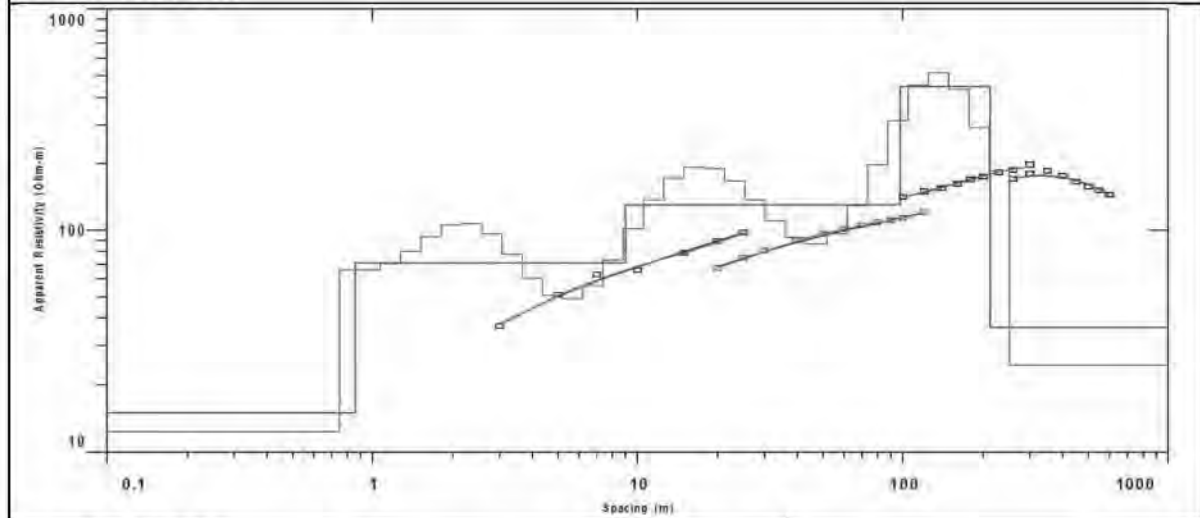
LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

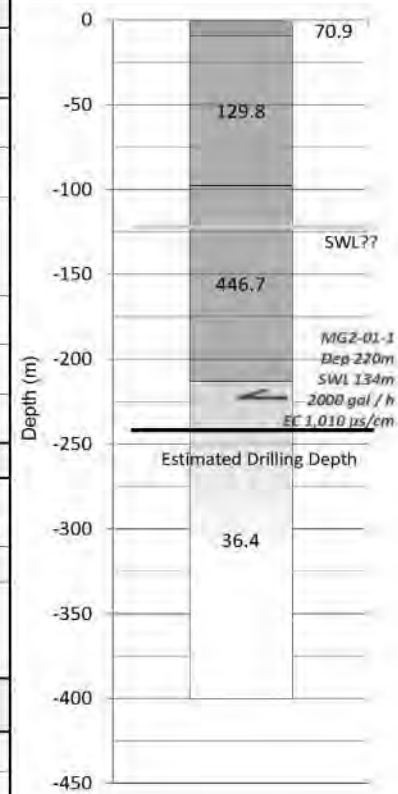
Village ID	MG2-04	Survey Date	28/05/2015
Village	Konegyi	Coordinate	X : 718,820
Township	Magway	(WGS 84 UTM Zone 46N)	Y : 2,237,250
Region	Magway	Elevation (m)	Z : 263

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	15.0	0.9	-0.9	Top Soil
2nd	70.9	8.2	-9.0	Irrawaddy formation (Sand : Unsaturated)
3rd	129.8	88.7	-97.7	Irrawaddy formation (Sand with gravel : Unsaturated)
4th	446.7	115.3	-213.0	Irrawaddy formation (Sand - silt : Saturated)
5th	36.4			
6th				
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand (Ir)	Estimated SWL( GL-m)	134m (Confined aquifer?)
	Depth (m)	>213m	Remarks:	
	Thickness (m)	>25m		
	Resistivity (Ω-m)	36.4		

Results of Evaluation

Estimated Drilling Depth(m)	240 m	Possibility / Priority	A : High Priority 2
-----------------------------	-------	------------------------	---------------------

Remarks

Drilling depth is estimated by information of existing tube well and resistivity value.

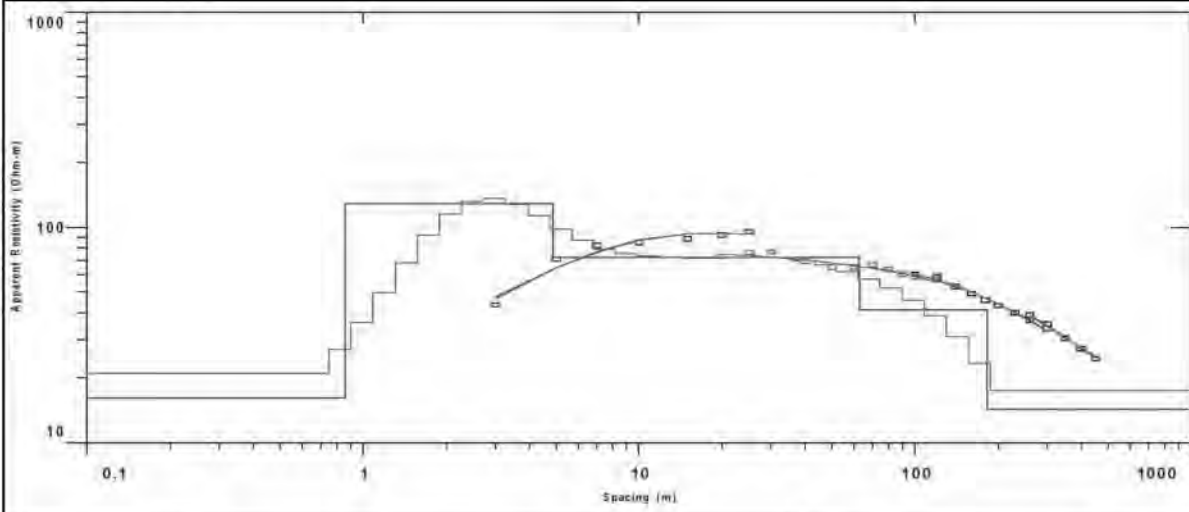
LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

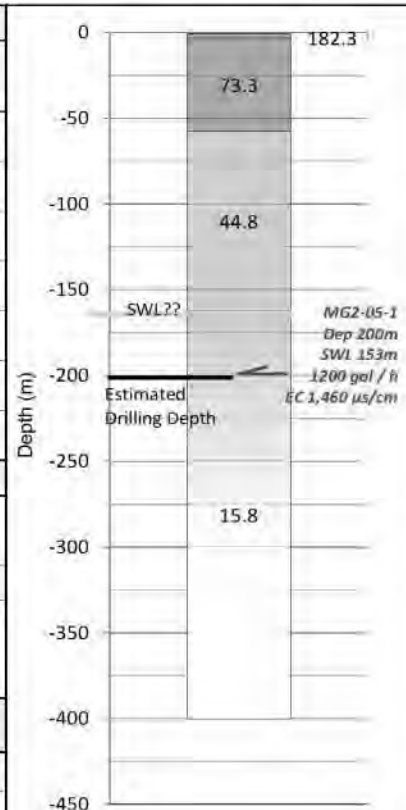
Village ID	MG2-05	Survey Date	27/05/2015
Village	Sainggya	Coordinate	X : 725,337
Township	Magway	(WGS 84 UTM Zone 46N)	Y : 2,213,980
Region	Magway	Elevation (m)	Z : 232

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	13.5	0.8	-0.8	Top Soil
2nd	182.3	2.3	-3.1	Irrawaddy formation (Sand with Gravel)
3rd	73.3	54.4	-57.4	Irrawaddy formation (Sand : Unsaturated)
4th	44.8	105.0	-162.4	Irrawaddy formation (Sand : Semi saturated)
5th	15.8			Irrawaddy formation (Sand : Saturated)
6th				
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand - Silty Sand(Ir)	Estimated SWL( GL-m)	162 m
	Depth (m)	>162m	Remarks:	
	Thickness (m)	>35m		
	Resistivity (Ω-m)	15.8		

Results of Evaluation

Estimated Drilling Depth(m)	200m	Possibility / Priority	B : Medium Priority 3
-----------------------------	------	------------------------	-----------------------

Remarks

Drilling depth is estimated by information of existing tube well and geophysical survey results.

LEGEND

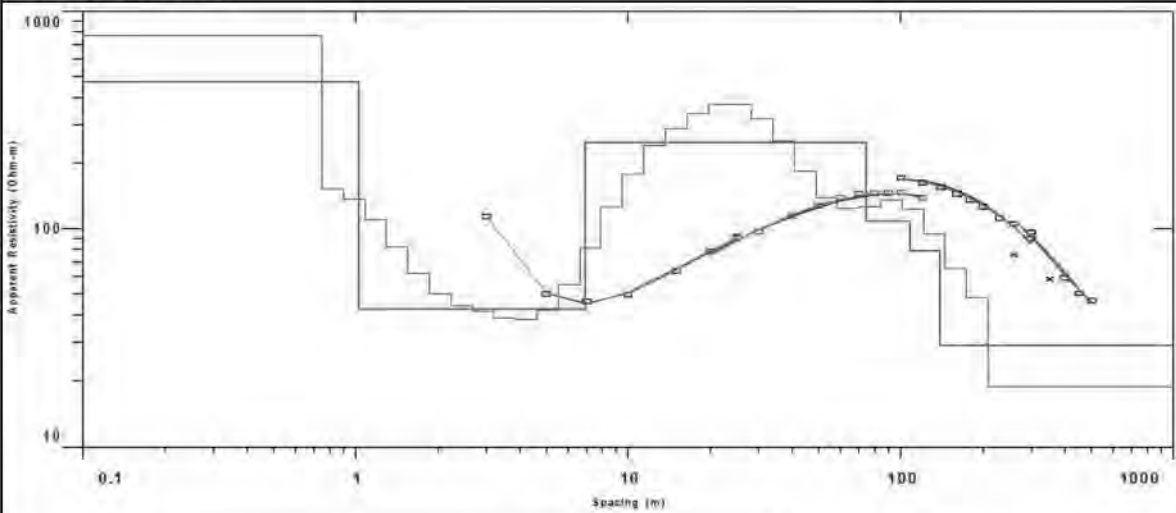
~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m



### Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

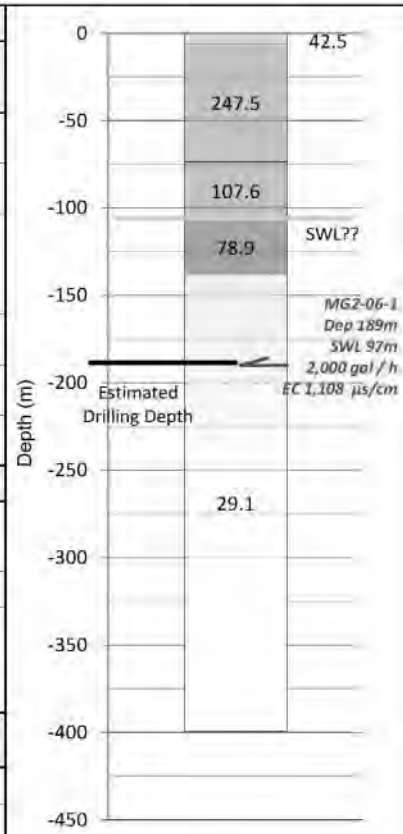
Village ID	MG2-06	Survey Date	26/05/2015
Village	Thapyaysan(N)	Coordinate	X : 712,481
Township	Magway	(WGS 84 UTM Zone 46N)	Y : 2,227,459
Region	Magway	Elevation (m)	Z : 174

#### Result of Inversion



#### Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	475.3	1.0	-0.97602	Top Soil
2nd	42.5	5.9	-6.9	Irrawaddy formation (Silty sand : Unsaturated)
3rd	247.5	67.5	-74.4	Irrawaddy formation (Sand with Gravel : Unsaturated)
4th	107.6	33.7	-108.1	Irrawaddy formation (Sand : Semi Saturated)
5th	78.9	30.9	-139.0	Irrawaddy formation (Sand : Saturated)
6th	29.1			
7th				



#### Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand (lr)	Estimated SWL( GL-m)	108m (Confined?)
	Depth (m)	>140m	Remarks:	
	Thickness (m)	>50m		
	Resistivity (Ω-m)	21.9		

#### Results of Evaluation

Estimated Drilling Depth(m)	190 m	Possibility / Priority	A : High Priority 2
-----------------------------	-------	------------------------	---------------------

#### Remarks

Drilling depth is decided by information of existing tube well.

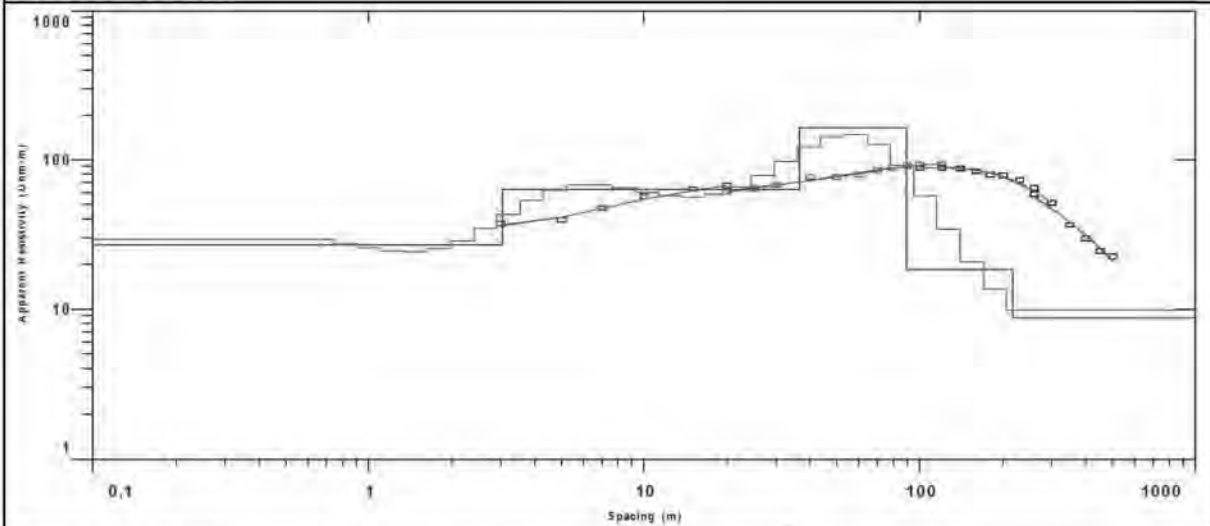
#### LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

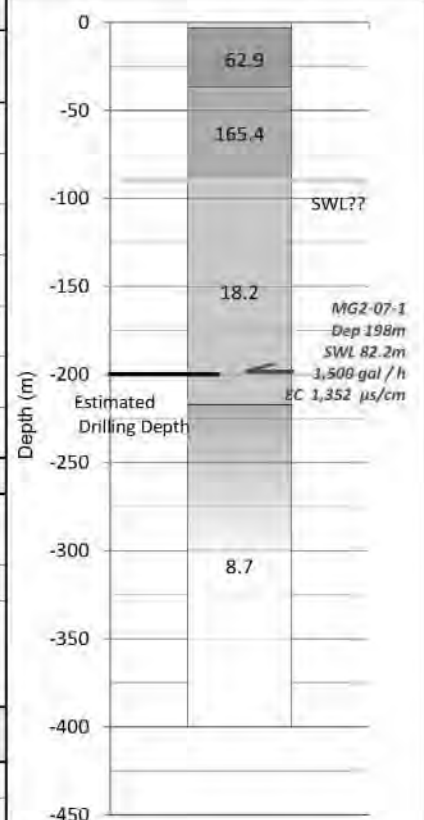
Village ID	MG2-07	Survey Date	27/05/2015
Village	Shwekyaw	Coordinate	X : 733,733
Township	Magway	(WGS 84 UTM Zone 46N)	Y : 2,207,455
Region	Magway	Elevation (m)	Z : 235

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	26.9	3.1	-3.1	Top Soil
2nd	62.9	33.5	-36.6	Irrawaddy formation (Sand : Unsaturated)
3rd	165.4	52.8	-89.4	Irrawaddy formation (Sand with gravel)
4th	18.2	127.5	-216.9	Irrawaddy formation (Sand : Saturated)
5th	8.7			Irrawaddy formation (Clay)
6th				
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand (Ir)	Estimated SWL( GL-m)	89 m
	Depth (m)	89 - 217m	Remarks:	
	Thickness (m)	>85m		
	Resistivity (Ω-m)	18.2		

Results of Evaluation

Estimated Drilling Depth(m)	200 m	Possibility / Priority	A : High Priority 2
-----------------------------	-------	------------------------	---------------------

Remarks

Drilling depth is estimated by information of existing tube well.

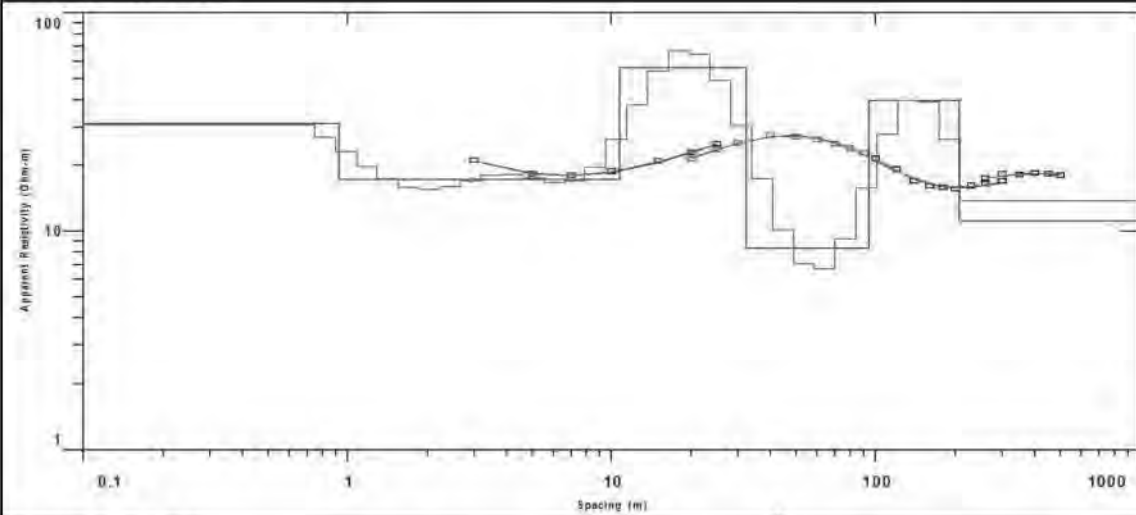
LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

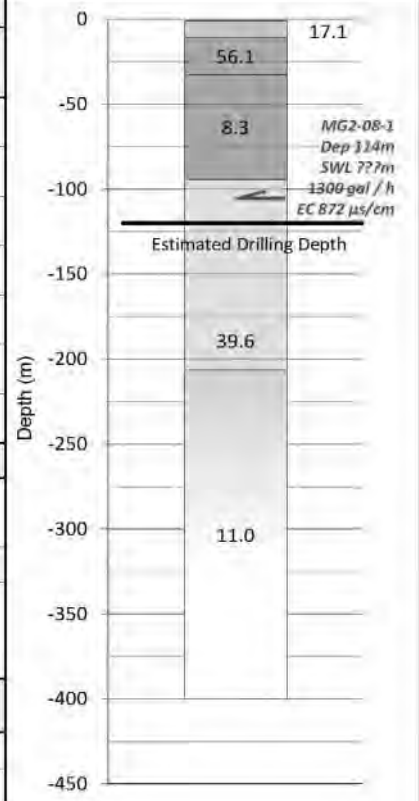
Village ID	MG2-08	Survey Date	29/05/2015
Village	Leikkan	Coordinate	X : 727,137
Township	Magway	(WGS 84 UTM Zone 46N)	Y : 2,239,525
Region	Magway	Elevation (m)	Z : 168

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	31.1	0.9	-0.9	Top Soil
2nd	17.1	9.8	-10.7	Irrawaddy formation (Silt : Unsaturated)
3rd	56.1	21.6	-32.4	Irrawaddy formation (Sand : Unsaturated)
4th	8.3	61.9	-94.3	Irrawaddy formation (Clay : Unsaturated)
5th	39.6	112.2	-206.5	Irrawaddy formation (Sand : Saturated)
6th	11.0			Irrawaddy formation (Silt - Sand : Saturated)
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand (lr)	Estimated SWL (GL-m)	100m ?
	Depth (m)	95-206m	Remarks:	
	Thickness (m)	>25m		
	Resistivity (Ω-m)	39.6		

Results of Evaluation

Estimated Drilling Depth(m)	120 m	Possibility / Priority	A : High Priority 3
-----------------------------	-------	------------------------	---------------------

Remarks

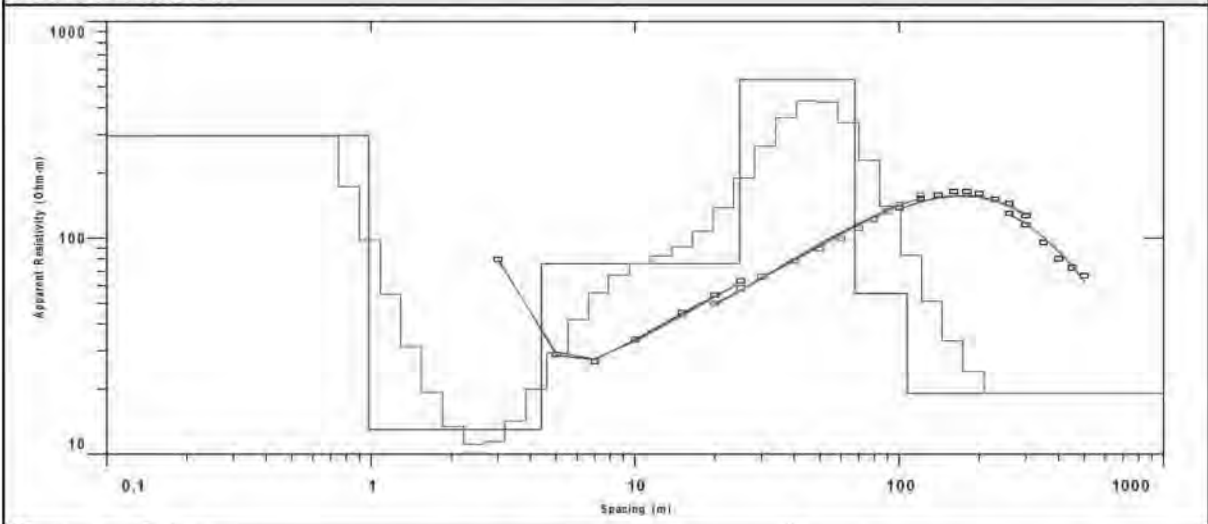
LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

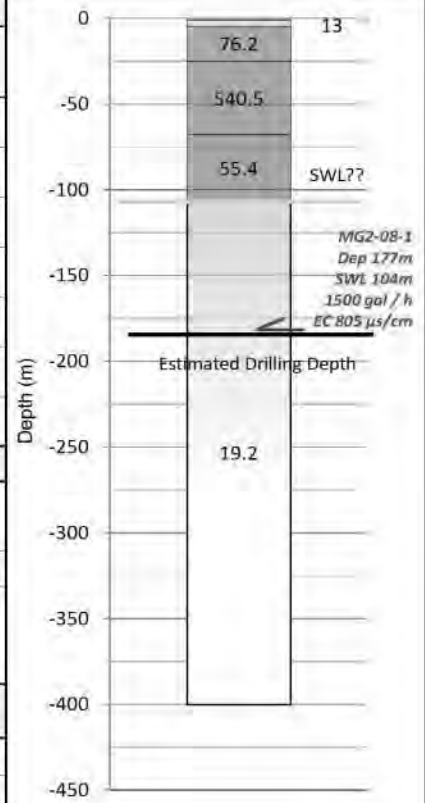
Village ID	MG2-09	Survey Date	29/05/2015
Village	Ywarthitgyi	Coordinate	X : 722,040
Township	Magway	(WGS 84 UTM Zone 46N)	Y : 2,238,165
Region	Magway	Elevation (m)	Z : 211

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	296.0	1.0	-1.0	Top Soil
2nd	13.0	3.4	-4.4	Irrawaddy formation (Sand: Unsaturated)
3rd	76.2	20.4	-24.8	Irrawaddy formation (Sand: Unsaturated)
4th	540.5	43.0	-67.8	Irrawaddy formation (Sand with gravel:?)
5th	55.4	38.8	-106.6	Irrawaddy formation (Sand: Unsaturated)
6th	19.2			Irrawaddy formation (Sand: Saturated)
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Silty Sand (lr)	Estimated SWL (GL-m)	105 m
	Depth (m)	>107m	Remarks:	
	Thickness (m)	>70m		
	Resistivity (Ω-m)	19.2		

Results of Evaluation

Estimated Drilling Depth(m)	180 m	Possibility / Priority	A : High Priority 3
-----------------------------	-------	------------------------	---------------------

Remarks

Drilling depth is estimated by information of existing tube well.

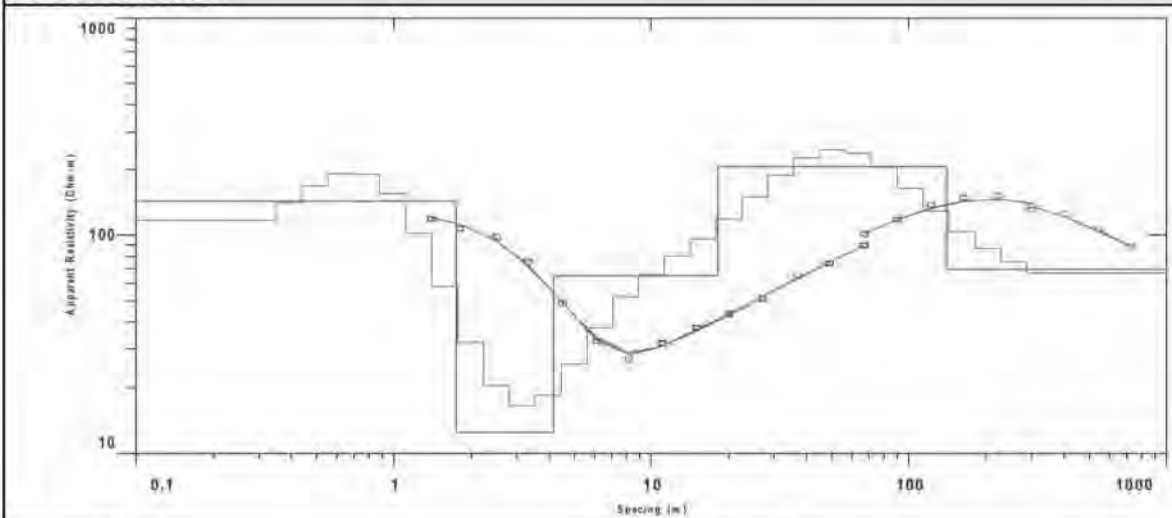
LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

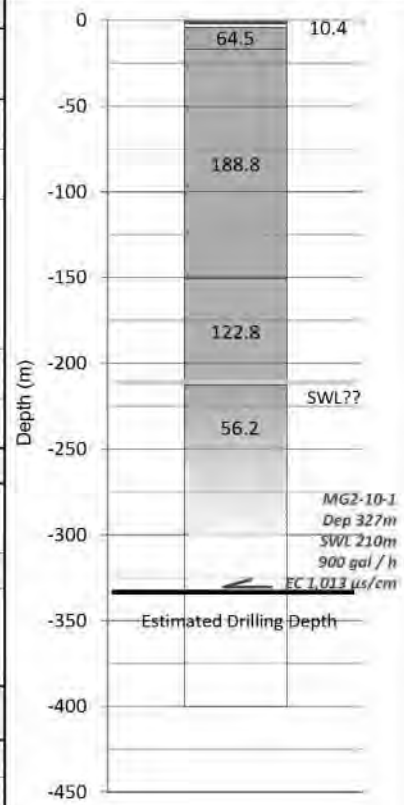
Village ID	MG2-10	Survey Date	19/06/2015
Village	Kanyaygyi	Coordinate	X : 702,719
Township	Chauk	(WGS 84 UTM Zone 46N)	Y : 2,281,976
Region	Magway	Elevation (m)	Z : 319

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	143.3	1.8	-1.8	Top Soil
2nd	10.4	2.0	-3.7	Irrawaddy formation (Clay : Unsaturated)
3rd	64.5	12.9	-16.6	Irrawaddy formation (Silt - Sand with Gravel?) (Unsaturated)
4th	188.8	133.7	-150.3	
5th	122.8	61.9	-212.2	Irrawaddy formation (Sand? : Saturated)
6th	56.2			
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand (Ir)	Estimated SWL( GL-m)	212 m
	Depth (m)	>212m	Remarks:	
	Thickness (m)	>100m		
	Resistivity (Ω-m)	56.2		

Results of Evaluation

Estimated Drilling Depth(m)	330 m	Possibility / Priority	C : Low-Medium Priority 3
-----------------------------	-------	------------------------	---------------------------

Remarks

Drilling depth is estimated by information of existing tube well.

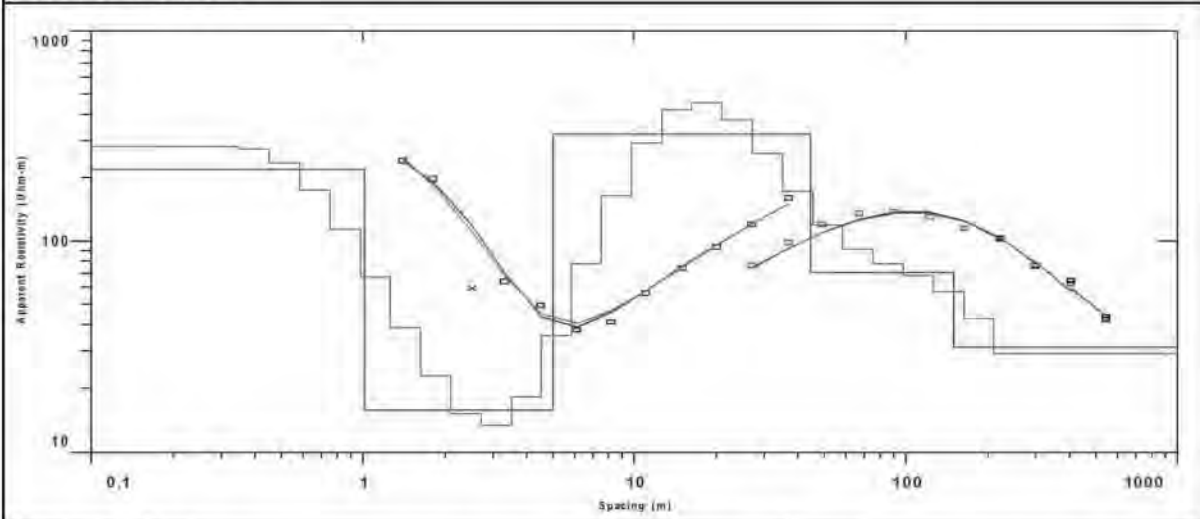
LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

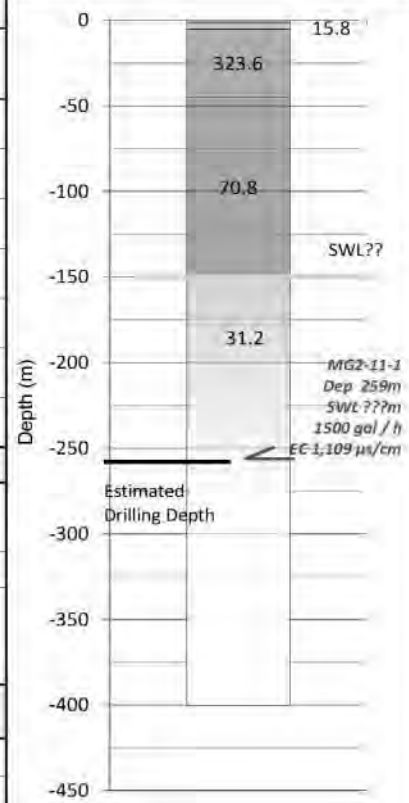
Village ID	MG2-11	Survey Date	19/06/2015
Village	Myaysoon(Ywarthit)	Coordinate	X : 698,121
Township	Chauk	(WGS 84 UTM Zone 46N)	Y : 2,277,376
Region	Magway	Elevation (m)	Z : 231

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	218.3	1.0	-1.0	Top Soil
2nd	15.8	4.0	-5.0	Irrawaddy formation (Clay : Unsaturated)
3rd	323.6	39.5	-44.5	Irrawaddy formation (Sand with Gravel)
4th	70.8	105.4	-149.9	Irrawaddy formation (Sand : Unsaturated)
5th	31.2			Irrawaddy formation (Sand : Saturated)
6th				
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand (Ir)	Estimated SWL( GL-m)	150 m
	Depth (m)	>150m	Remarks:	
	Thickness (m)	>110m		
	Resistivity (Ω-m)	31.2		

Results of Evaluation

Estimated Drilling Depth(m)	260 m	Possibility / Priority	A : High Priority 2
-----------------------------	-------	------------------------	---------------------

Remarks

Drilling depth is estimated by information of existing tube well.

LEGEND

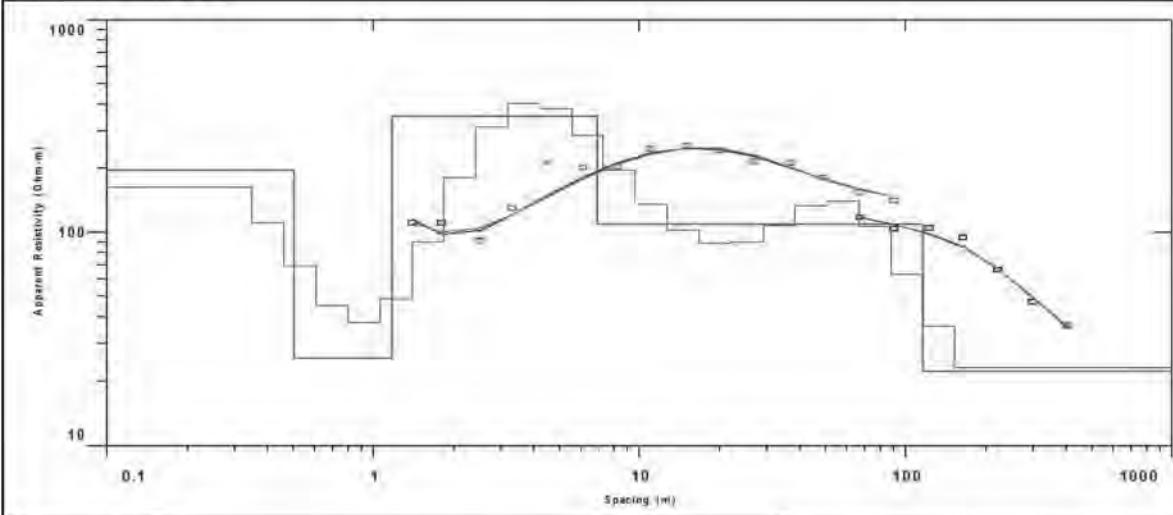
~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m



Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

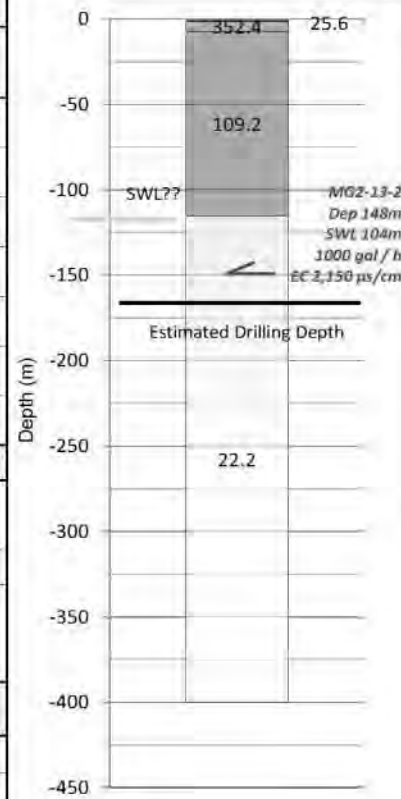
Village ID	MG2-13	Survey Date	19/06/2015
Village	Yenpyay	Coordinate	X : 691,263
Township	Chauk	(WGS 84 UTM Zone 46N)	Y : 2,301,508
Region	Magway	Elevation (m)	Z : 1,364

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	195.3	0.5	-0.5	Top Soil
2nd	25.6	0.7	-1.2	Alluvium deposit (Silt?: Unsaturated)
3rd	352.4	5.7	-6.9	Alluvium deposit (Gravel?)
4th	109.2	108.5	-115.4	Alluvium/ Irrawaddy? (Sand with Gravel?)
5th	22.2			Irrawaddy formation (Sand: Saturated)
6th				
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand (Ir)	Estimated SWL( GL-m)	115 m
	Depth (m)	>115m	Remarks:	
	Thickness (m)	>55m		
	Resistivity (Ω-m)	22.2		

Results of Evaluation

Estimated Drilling Depth(m)	170m	Possibility / Priority	A : High Priority 3
-----------------------------	------	------------------------	---------------------

Remarks

Drilling depth is estimated by information of existing tube well.  
 Besides, VES point is located 20 m higher than existing tube well.  
 So, the recommended depth is set to plus 20 m.  
 (148m + 20m = 160m)

LEGEND

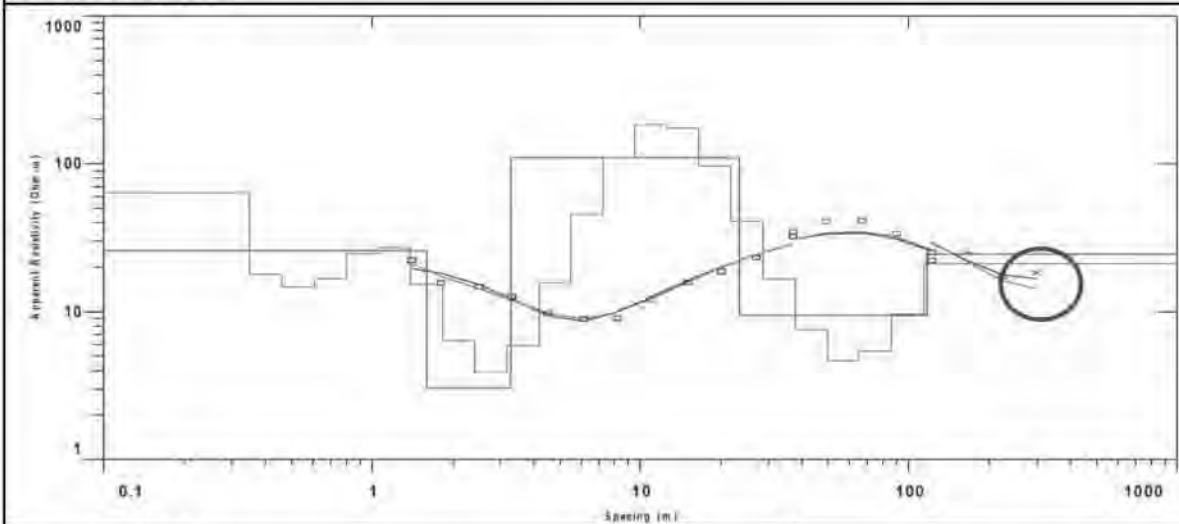
- 5Ω-m	- 30Ω-m
- 10Ω-m	- 50Ω-m
- 15Ω-m	- 100Ω-m
- 20Ω-m	>100Ω-m



Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

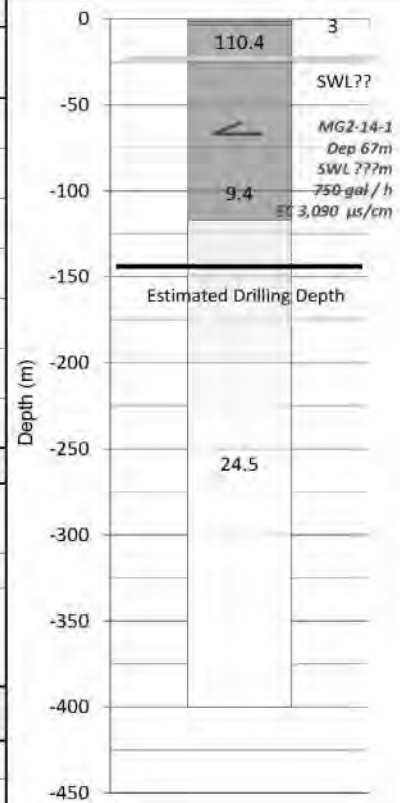
Village ID	MG2-14	Survey Date	18/06/2015
Village	Kyatesu(N)	Coordinate	X : 685,564
Township	Chauk	(WGS 84 UTM Zone 46N)	Y : 2,292,820
Region	Magway	Elevation (m)	Z : 95

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	25.9	1.6	-1.6	Top soil/ Alluvium deposit
2nd	3.0	1.7	-3.3	Alluvium deposit (Clay)
3rd	110.4	20.0	-23.3	Alluvium deposit (Gravel?)
4th	9.4	93.5	-116.8	Irrawady formation (Clay : Saturated)
5th	24.5			Irrawady formation (Sand : Saturated)
6th				
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand (lr)	Estimated SWL( GL-m)	23m ?
	Depth (m)	>117m	Remarks:	
	Thickness (m)	>23m		
	Resistivity (Ω-m)	24.5		

Results of Evaluation

Estimated Drilling Depth(m)	145 m	Possibility / Priority	A : High Priority 3
-----------------------------	-------	------------------------	---------------------

Remarks

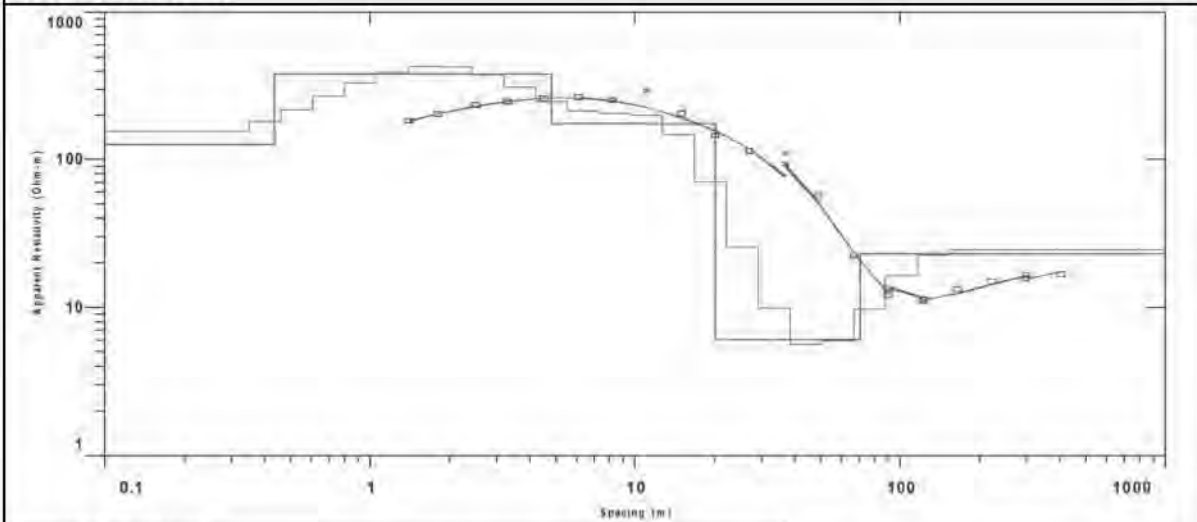
LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

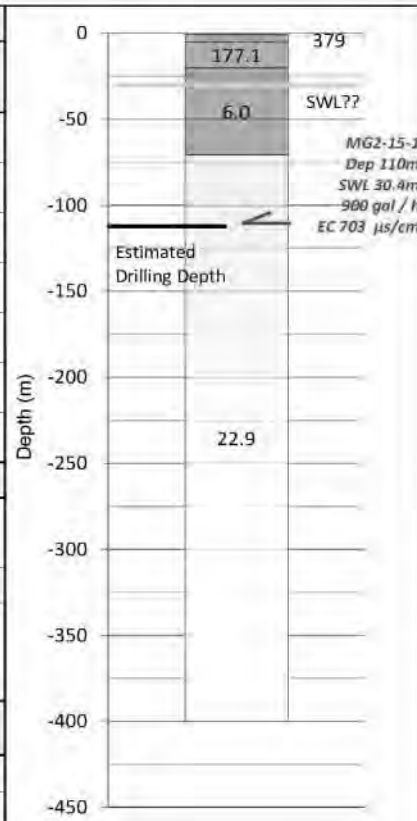
Village ID	MG2-15	Survey Date	18/06/2015
Village	Winkabar	Coordinate	X : 684,439
Township	Chauk	(WGS 84 UTM Zone 46N)	Y : 2,287,271
Region	Magway	Elevation (m)	Z : 64

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	125.8	0.4	-0.4	Top Soil
2nd	379.0	4.4	-4.8	Alluvium deposit (Gravel / sand)
3rd	177.1	15.2	-20.1	Alluvium deposit (Gravel / sand)
4th	6.0	50.5	-70.6	Irrawaddy formation (Clay : Saturated)
5th	22.9			Irrawaddy formation (Sand : Saturated)
6th				
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand (lr)	Estimated SWL( GL-m)	30m (Confined?)
	Depth (m)	>70m	Remarks:	
	Thickness (m)	>30m		
	Resistivity (Ω-m)	22.9		

Results of Evaluation

Estimated Drilling Depth(m)	110 m	Possibility / Priority	A : High Priority 3
-----------------------------	-------	------------------------	---------------------

Remarks

Drilling depth is estimated by information of existing tube well.

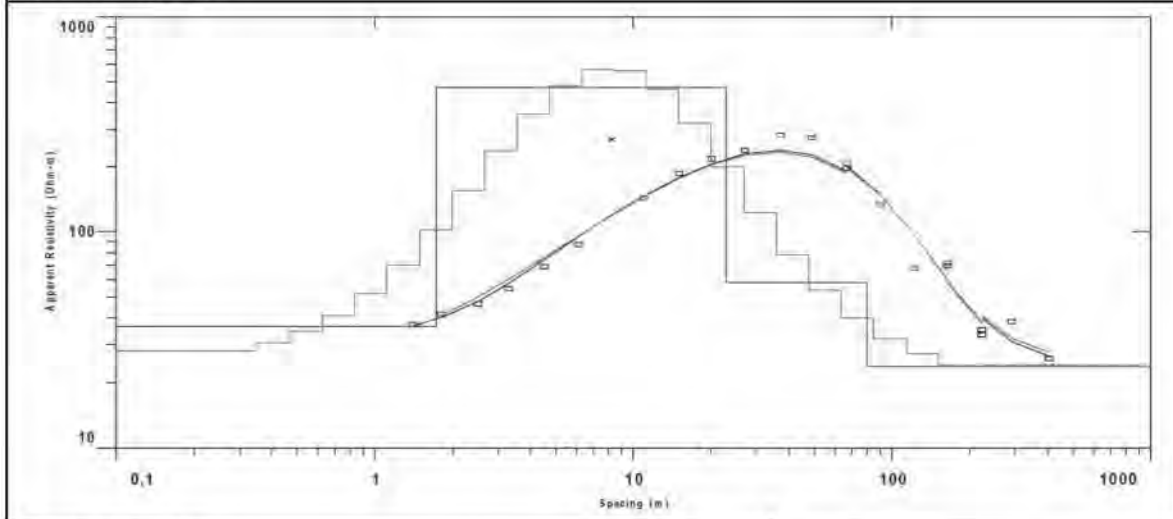
LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

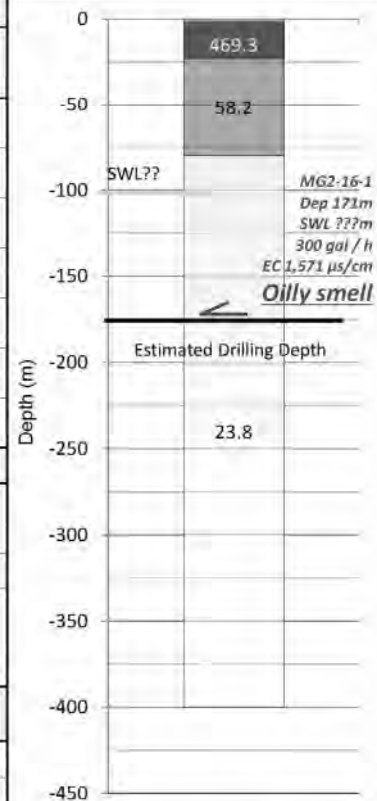
Village ID	MG2-16	Survey Date	18/06/2015
Village	Kyatkan	Coordinate	X : 685,567
Township	Chauk	(WGS 84 UTM Zone 46N)	Y : 2,292,822
Region	Magway	Elevation (m)	Z : 95

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	36.5	1.7	-1.7	Topo Soil
2nd	469.3	21.1	-22.8	Aluvium deposit (Gravel/Sand)
3rd	58.2	57.1	-79.9	Aluvium / Irrawady (Sand)
4th	23.8			Irrawady formation (Sand : saturated)
5th				
6th				
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand (lr)	Estimated SWL( GL-m)	100 m
	Depth (m)	>80m	Remarks:	
	Thickness (m)	>110m		
	Resistivity (Ω-m)	23.8		

Results of Evaluation

Estimated Drilling Depth(m)	170m	Possibility / Priority	A : High Priority 3
-----------------------------	------	------------------------	---------------------

Remarks  
 Drilling depth is estimated by existing tube well.  
 During drillig, It requires attention to oil contained in the layer.

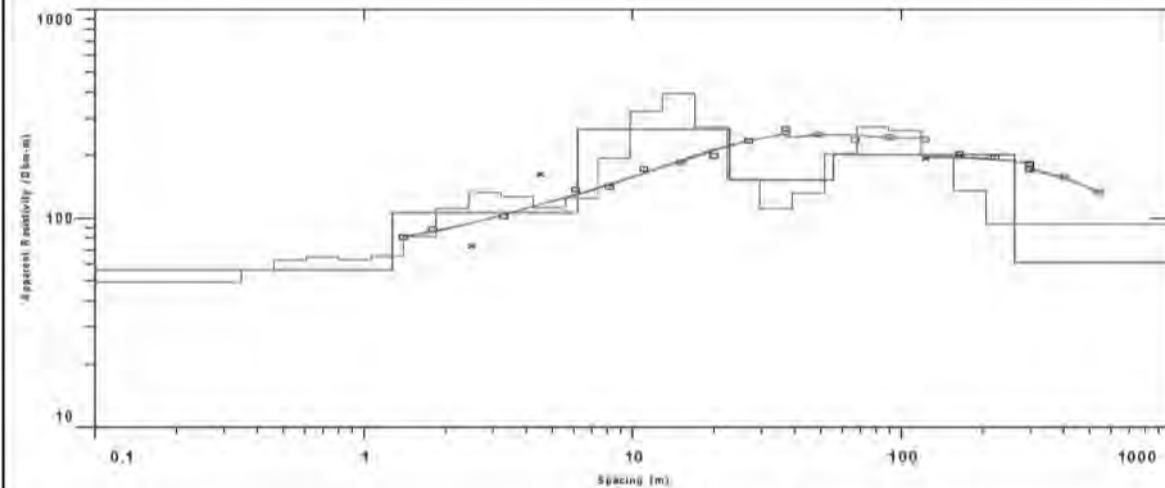
LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

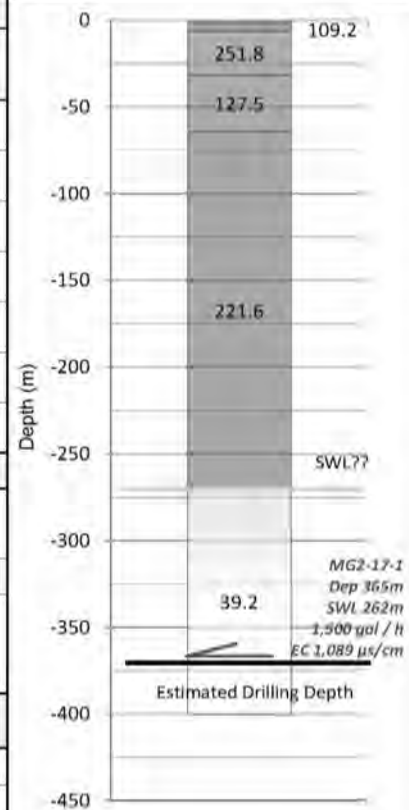
Village ID	MG2-17	Survey Date	17/06/2015
Village	Sudat	Coordinate	X : 706,601
Township	Chauk	(WGS 84 UTM Zone 46N)	Y : 2,285,682
Region	Magway	Elevation (m)	Z : 386

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	56.6	1.3	-1.3	Top Soil
2nd	109.2	4.9	-6.3	Irrawady formation (Sand > Gravel?)
3rd	251.8	25.0	-31.2	Irrawady formation (Gravel > Sand?)
4th	127.5	32.9	-64.1	Irrawady formation (Sand > Gravel?)
5th	221.6	206.2	-270.3	Irrawady formation (Gravel > Sand?)
6th	39.2			Irrawady formation (Sand : Saturated)
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand (Ir)	Estimated SWL (GL-m)	270 m
	Depth (m)	>270m	Remarks:	
	Thickness (m)	>100m		
	Resistivity (Ω-m)	39.2		

Results of Evaluation

Estimated Drilling Depth(m)	370 m	Possibility / Priority	A : High Priority 1
-----------------------------	-------	------------------------	---------------------

Remarks

Drilling depth is estimated by information of existing tube well.

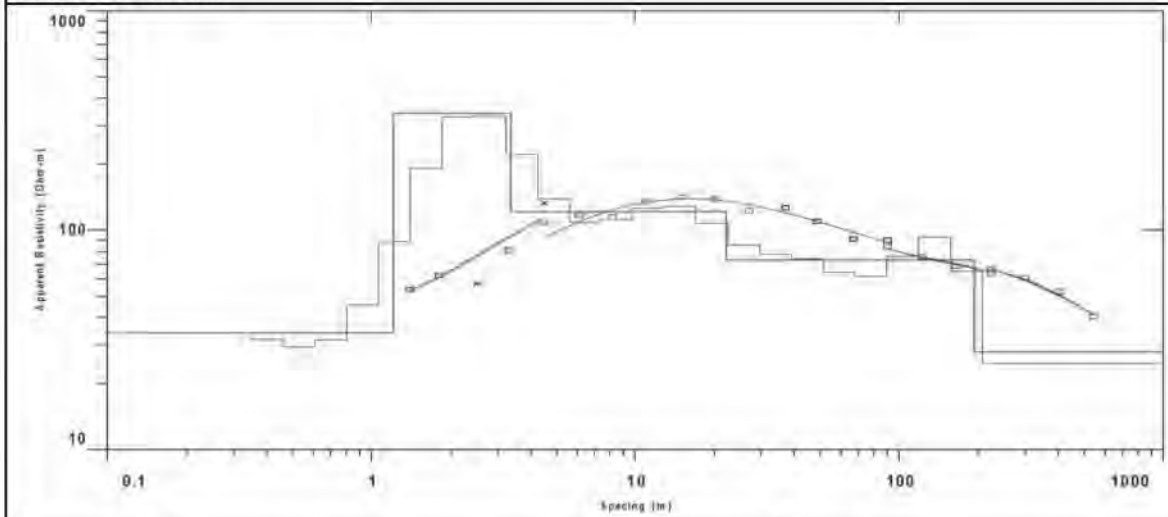
LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

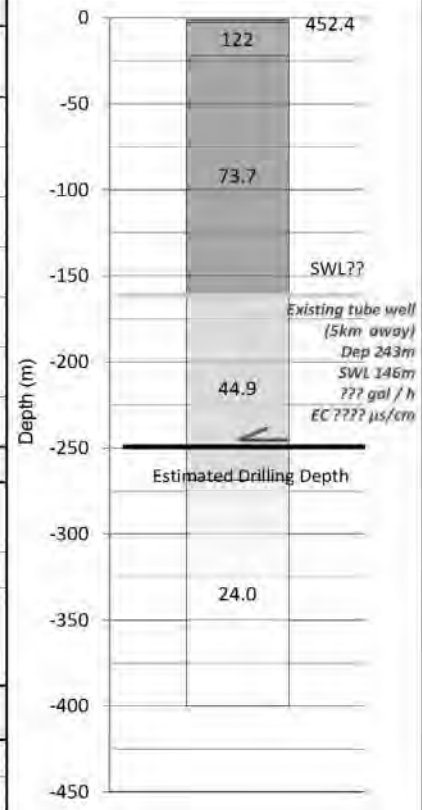
Village ID	MG2-18	Survey Date	17/06/2015
Village	Myaynilain	Coordinate	X : 698,822
Township	Chauk	(WGS 84 UTM Zone 46N)	Y : 2,287,046
Region	Magway	Elevation (m)	Z : 306

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	34.3	1.3	-1.3	Top Soil
2nd	452.4	1.5	-2.8	Irrawady formation (Gravel?)
3rd	122.0	18.8	-21.6	Irrawady formation (Gravel with Sand)
4th	73.7	139.6	-161.2	Irrawady formation (Sand : Unsaturated)
5th	44.9	107.4	-268.6	Irrawady formation (Sand : Saturated)
6th	24.0			Irrawady formation (Sand : Saturated)
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand (Ir)	Estimated SWL( GL-m)	160 m
	Depth (m)	161 - 268 m	Remarks:	
	Thickness (m)	>90m		
	Resistivity (Ω-m)	44.9		

Results of Evaluation

Estimated Drilling Depth(m)	250 m	Possibility / Priority	B : Medium Priority 3
-----------------------------	-------	------------------------	-----------------------

Remarks

Drilling depth is estimated by information of existing tube well. (That tube well is 5 km away from here.)

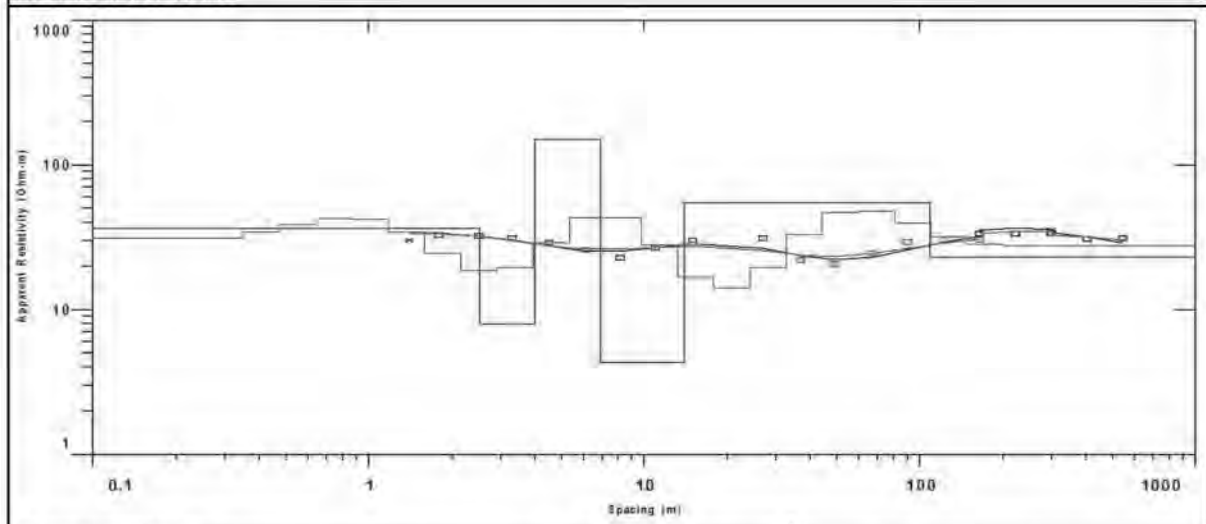
LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

### Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

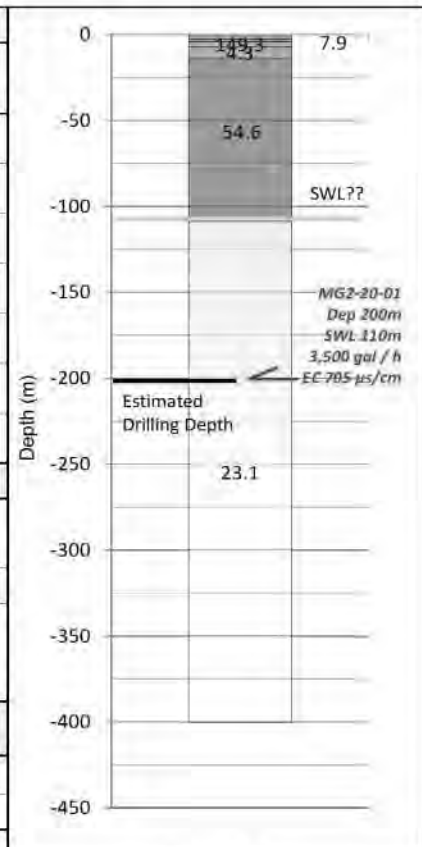
Village ID	MG2-20	Survey Date	20/06/2015
Village	Laytinesin(S)	Coordinate	X : 732,777
Township	Myothit	(WGS 84 UTM Zone 46N)	Y : 2,235,825
Region	Magway	Elevation (m)	Z : 166

#### Result of Inversion



#### Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	36.3	2.5	-2.5	Top Soil
2nd	7.9	1.5	-4.0	Irrawaddy formation (Clay : Unsaturated)
3rd	149.3	2.9	-6.9	Irrawaddy formation (Sand with Gravel)
4th	4.3	7.0	-14.0	Irrawaddy formation (Clay : Unsaturated)
5th	54.6	94.8	-108.8	Irrawaddy formation (Sand : Unsaturated)
6th	23.1			Irrawaddy formation (Sand : Saturated)
7th				



#### Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand (Ir)	Estimated SWL( GL-m)	109 m
	Depth (m)	>109m	Remarks:	
	Thickness (m)	>90m		
	Resistivity (Ω-m)	23.1		

#### Results of Evaluation

Estimated Drilling Depth(m)	200 m	Possibility / Priority	A : High Priority 2
-----------------------------	-------	------------------------	---------------------

Remarks  
Drilling depth is estimated by information of existing tube well.

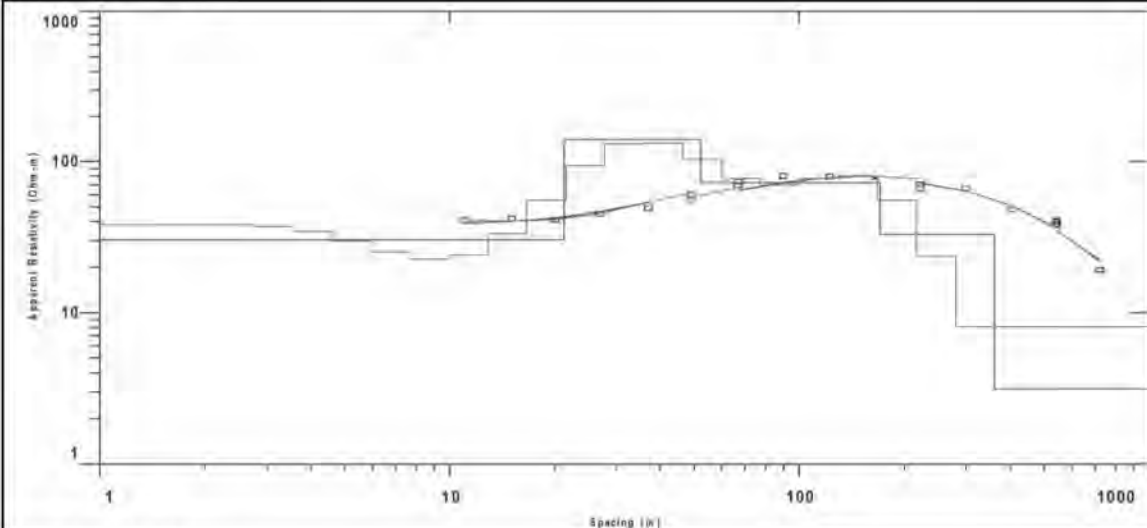
LEGEND			
	~ 5Ω-m		~ 30Ω-m
	~ 10Ω-m		~ 50Ω-m
	~ 15Ω-m		~ 100Ω-m
	~ 20Ω-m		>100Ω-m



Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

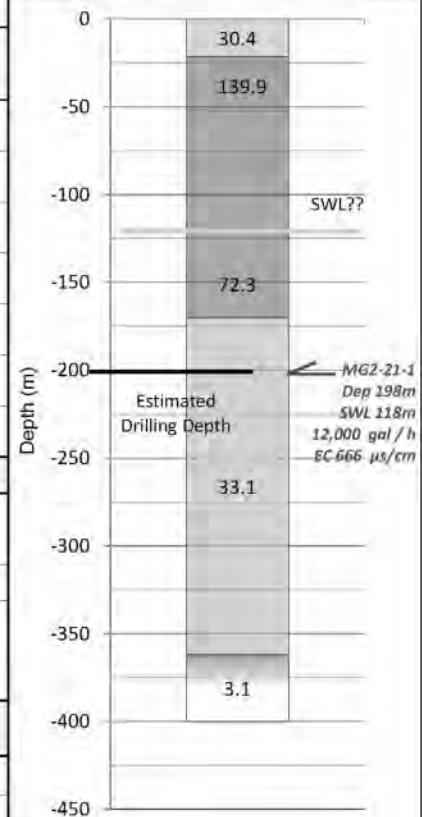
Village ID	MG2-21	Survey Date	21/06/2015
Village	Tharmyar	Coordinate	X : 736,054
Township	Myothit	(WGS 84 UTM Zone 46N)	Y : 2,241,105
Region	Magway	Elevation (m)	Z : 217

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	30.4	21.2	-21.2	Top Soil/ Irrawady (Silt - Sand)
2nd	139.9	31.1	-52.3	Irrawady formation (Sand with Gravel)
3rd	72.3	117.6	-169.9	Irrawady formation (Sand :Unsaturred)
4th	33.1	192.2	-362.1	Irrawady formation (Sand :Saturatted)
5th	3.1			Irrawady formation (Clay :Saturatted)
6th				
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand (Ir)	Estimated SWL( GL-m)	120 m
	Depth (m)	170 - 362 m	Remarks:	
	Thickness (m)	>30m		
	Resistivity (Ω-m)	33.1		

Results of Evaluation

Estimated Drilling Depth(m)	200 m	Possibility / Priority	A : High Priority 2
-----------------------------	-------	------------------------	---------------------

Remarks

Drilling depth is decided by information of existing tube well.

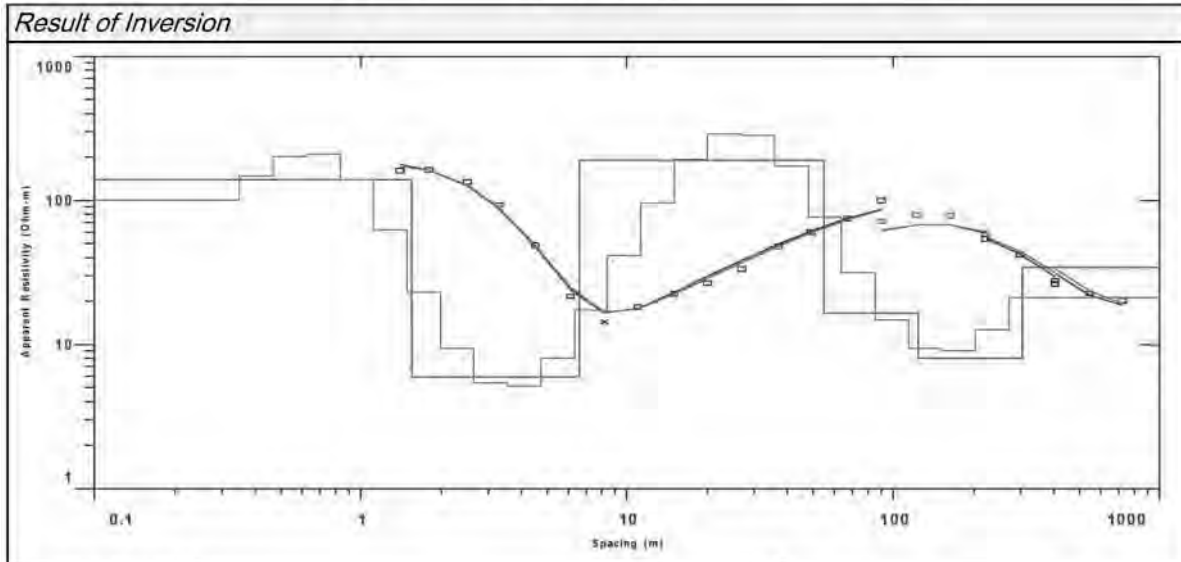
LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

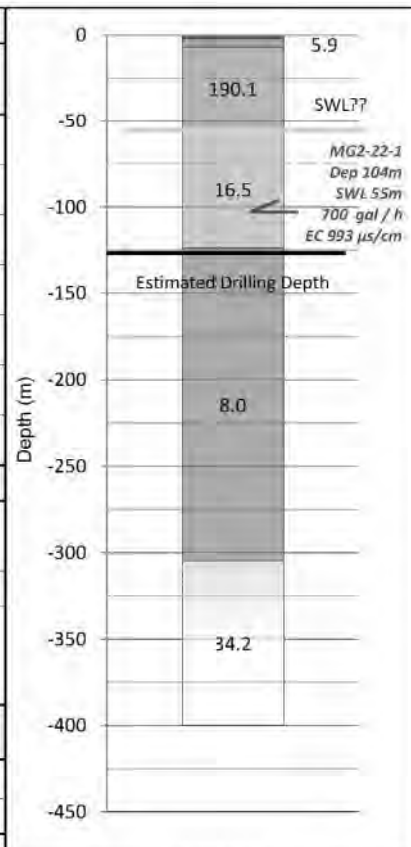


Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

Village ID	MG2-22	Survey Date	21/06/2015
Village	Aungmyinthar	Coordinate	X : 733,165
Township	Myothit	(WGS 84 UTM Zone 46N)	Y : 2,231,570
Region	Magway	Elevation (m)	Z : 154



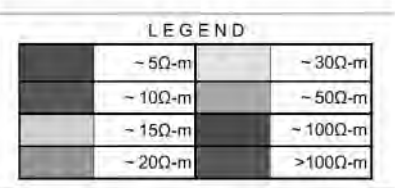
Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	138.9	1.5	-1.5	Top Soil (Sand)
2nd	5.9	5.0	-6.6	Top Soil (Clay)
3rd	190.1	48.5	-55.1	Irrawaddy formation (Sand with gravel)
4th	16.5	68.8	-123.9	Irrawaddy formation (Sand : Saturated)
5th	8.0	180.6	-304.5	Irrawaddy formation (Silt - Clay)
6th	34.2			Irrawaddy formation (Sand :Saturated?)
7th				



Target Aquifer	Lithology	Sand (Ir)	Estimated SWL( GL-m)	55 m
	Depth (m)	55 - 124m	Remarks:	
	Thickness (m)	>65m		
	Resistivity (Ω-m)	16.5		

Estimated Drilling Depth(m)	120 m	Possibility / Priority	C : Low-Medium Priority 5
-----------------------------	-------	------------------------	---------------------------

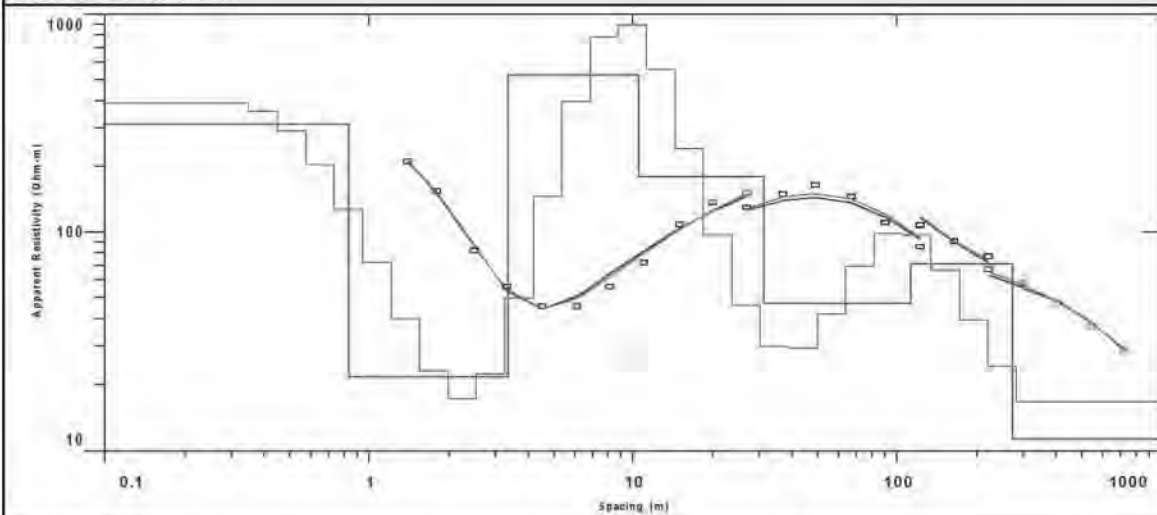
Remarks  
 From existing borehole, It is expected that capacity of target aquifers is low. Therefore, It is recommended that drilling depth is set to deep part as possible.



Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

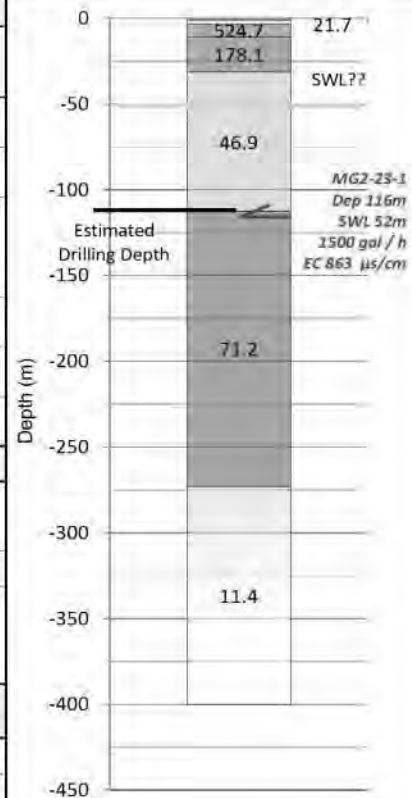
Village ID	MG2-23	Survey Date	22/06/2015
Village	Ngwelay	Coordinate	X : 738,865
Township	Myothit	(WGS 84 UTM Zone 46N)	Y : 2,222,523
Region	Magway	Elevation (m)	Z : 125

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	312.6	0.8	-0.8	Top Soil
2nd	21.7	2.5	-3.3	Irrawaddy formation (Silt : Unsaturated)
3rd	524.7	7.2	-10.5	Irrawaddy formation (Sand with Gravel) (Unsaturated)
4th	178.1	20.7	-31.2	Irrawaddy formation (Sand: Saturated)
5th	46.9	81.2	-112.4	Pegu? Irrawaddy? (Impermeable layer?)
6th	71.2	160.5	-272.9	Pegu? Irrawaddy?
7th	11.4			(Clay ? Confined aquifer?)



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand (Ir)	Estimated SWL( GL-m)	52 m
	Depth (m)	31 - 112m	Remarks:	
	Thickness (m)	>50m		
	Resistivity (Ω-m)	45.9		

Results of Evaluation

Estimated Drilling Depth(m)	115 m	Possibility / Priority	B : Medium Priority 4
-----------------------------	-------	------------------------	-----------------------

Remarks

Drilling depth is estimated by information of existing tube well.

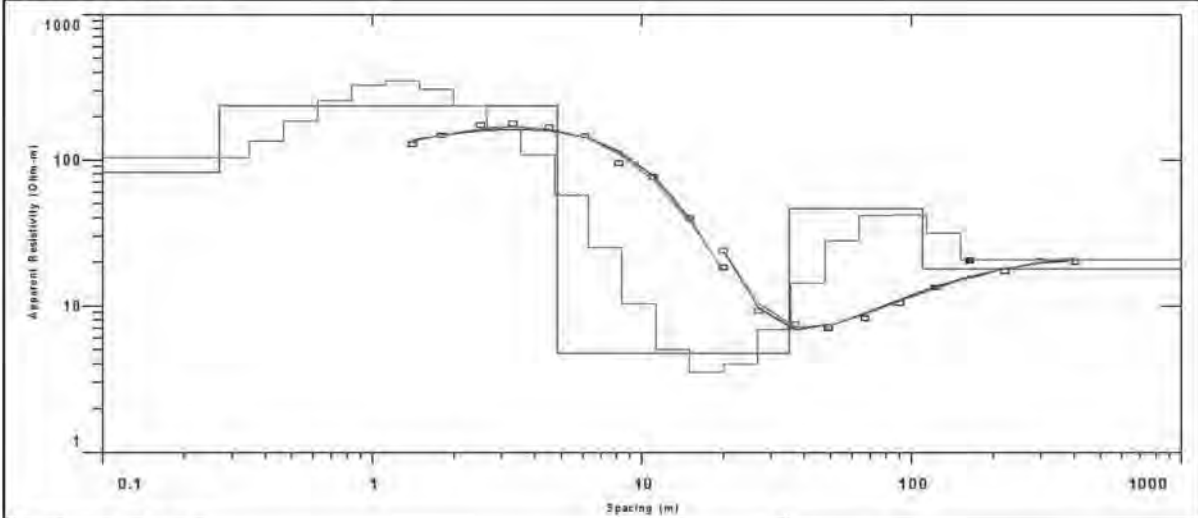
LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

### Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

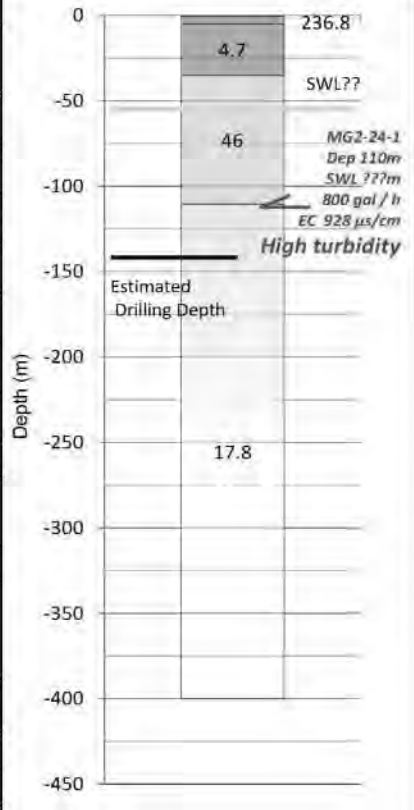
Village ID	MG2-24	Survey Date	20/06/2015
Village	Indaw(N)	Coordinate	X : 742,485
Township	Myothit	(WGS 84 UTM Zone 46N)	Y : 2,229,625
Region	Magway	Elevation (m)	Z : 131

#### Result of Inversion



#### Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	82.2	0.3	-0.3	Top Soil
2nd	236.8	4.6	-4.8	Irrawady formation (Sand with gravel)
3rd	4.7	30.3	-35.1	Irrawady formation (Clay)
4th	46.0	75.3	-110.4	Irrawady formation (Sand? Saturated)
5th	17.8			Irrawady formation (Silt - Sand : Saturated)
6th				
7th				



#### Estimation Results of Hydrogeological Information

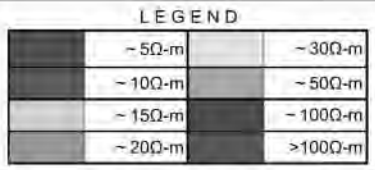
Target Aquifer	Lithology	Sand (Ir)	Estimated SWL( GL-m)	55 m
	Depth (m)	>110m	Remarks:	
	Thickness (m)	>30m	SWL is estimated by near tube well. (MG2-23-1)	
	Resistivity (Ω-m)	17.8		

#### Results of Evaluation

Estimated Drilling Depth(m)	145 m	Possibility / Priority	C : Low-Medium Priority 5
-----------------------------	-------	------------------------	---------------------------

#### Remarks

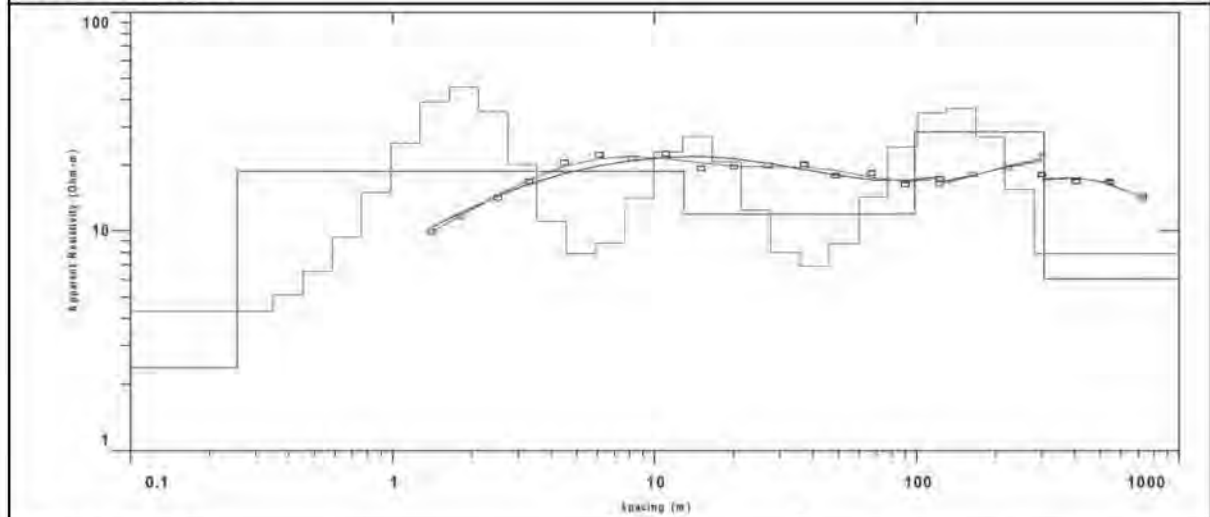
Yield of existing tube well is low and groundwater involves the high turbidity. From above reasons, estimated drilling depth is set to more deeper.



Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

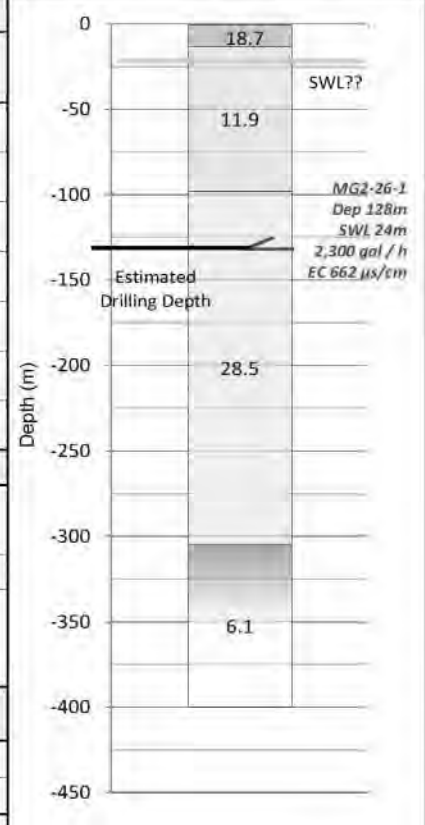
Village ID	MG2-26	Survey Date	22/06/2015
Village	Manawtgone	Coordinate	X : 731,842
Township	Myothit	(WGS 84 UTM Zone 46N)	Y : 2,222,261
Region	Magway	Elevation (m)	Z : 96

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	2.4	0.3	-0.3	Top Soil
2nd	18.7	12.7	-13.0	Top Soil / Irrawaddy F (Silt : Unsaturated)
3rd	11.9	85.1	-98.1	Irrawaddy formation (Silt : Saturated?)
4th	28.5	206.4	-304.5	Irrawaddy formation (Sand : Saturated)
5th	6.1			Irrawaddy formation (Clay)
6th				
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand (Ir)	Estimated SWL( GL-m)	24 m
	Depth (m)	98 - 305m	Remarks:	
	Thickness (m)	>30m		
	Resistivity (Ω-m)	28.5		

Results of Evaluation

Estimated Drilling Depth(m)	130 m	Possibility / Priority	A : High Priority 3
-----------------------------	-------	------------------------	---------------------

Remarks

Drilling depth is estimated by information of existing tube well.

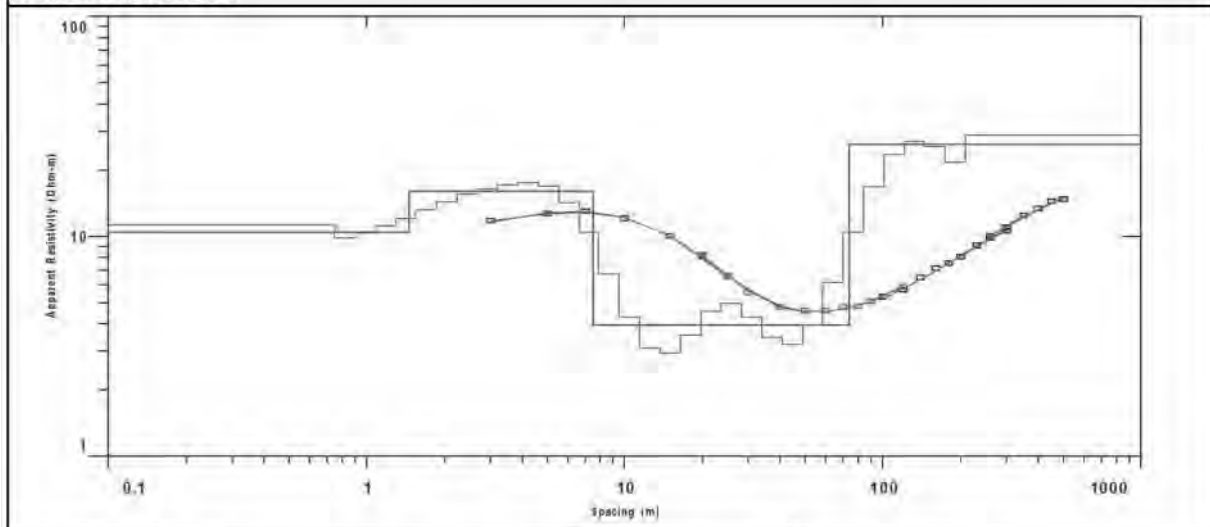
LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

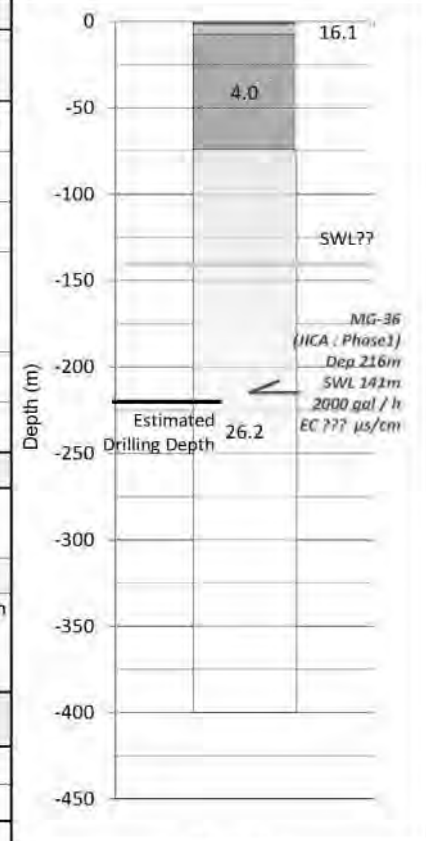
Village ID	MG2-27	Survey Date	08/06/2015
Village	Kangyigone	Coordinate	X : 742,472
Township	Natmauk	(WGS 84 UTM Zone 46N)	Y : 2,259,236
Region	Magway	Elevation (m)	Z : 269

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω·m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	10.4	1.5	-1.5	Top Soil
2nd	16.1	6.1	-7.5	Irrawaddy formation (Silt : Unsaturated)
3rd	4.0	66.6	-74.1	Irrawaddy formation (Clay : Unsaturated)
4th	26.2			Irrawaddy formation (Silt / Sand : Unsaturated - Saturated)
5th				
6th				
7th				



Estimation Results of Hydrogeological Information

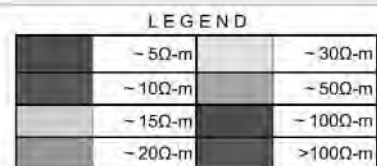
Target Aquifer	Lithology	Sand (lr)	Estimated SWL( GL-m)	141 m
	Depth (m)	141-220	Remarks:	
	Thickness (m)	>75m	SWL is estimated by existing tube well which is located near the site.	
	Resistivity (Ω·m)	26.2	(MG-36:JICA phase 1)	

Results of Evaluation

Estimated Drilling Depth(m)	220 m	Possibility / Priority	A : High Priority 2
-----------------------------	-------	------------------------	---------------------

Remarks

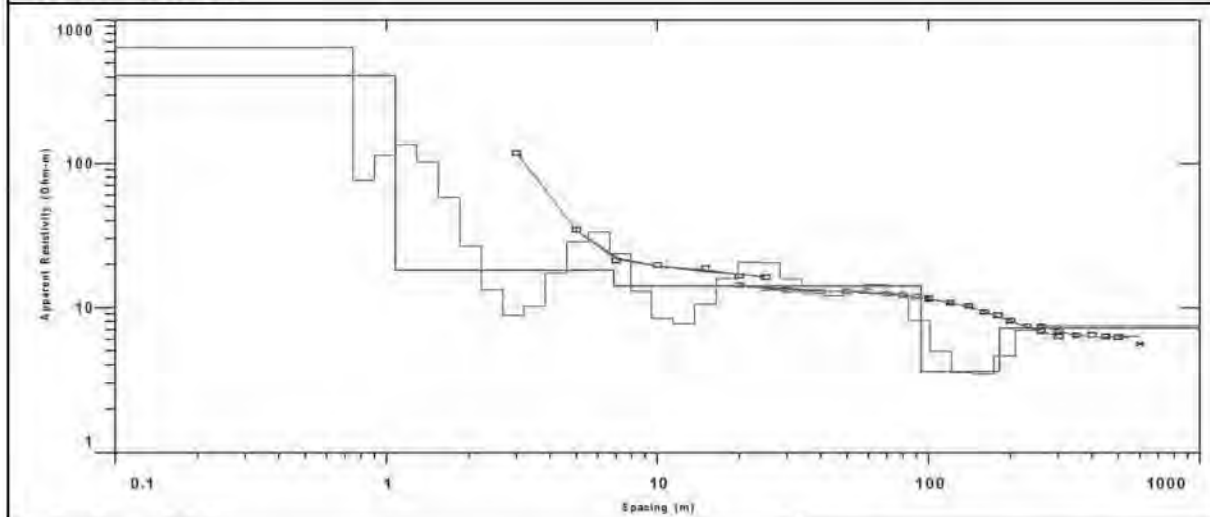
Drilling depth is estimated by information of existing tube well which is located near the site.  
(It is located 1.8km away from here.)



Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

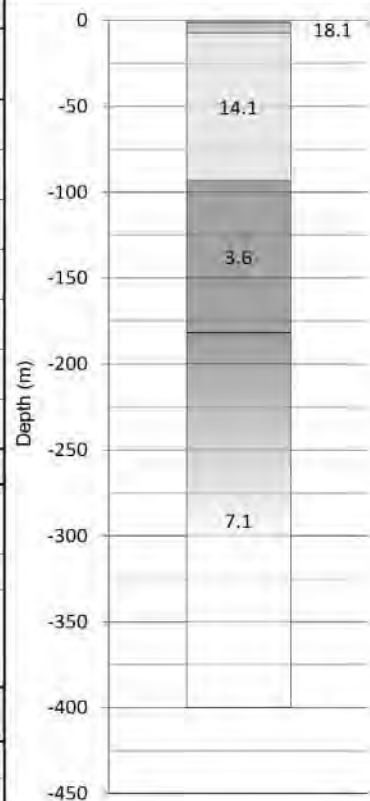
Village ID	MG2-32	Survey Date	04/06/2015
Village	Ywartharlay	Coordinate	X : 730,882
Township	Natmauk	(WGS 84 UTM Zone 46N)	Y : 2,275,379
Region	Magway	Elevation (m)	Z : 292

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	408.7	1.1	-1.1	Top Soil
2nd	18.1	5.8	-6.9	Silty Sand? (Unsaturated?)
3rd	14.1	86.5	-93.4	Silty Sand? (Unsaturated?)
4th	3.6	88.3	-181.7	Silty Sand - Clay? (Saturated?)
5th	7.1			Silty Sand? (Saturated)
6th				
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	-	Estimated SWL( GL-m)	-
	Depth (m)	-	Remarks:	
	Thickness (m)	--		
	Resistivity (Ω-m)	--		

Results of Evaluation

Estimated Drilling Depth(m)	-	Possibility / Priority	D : No possibility
-----------------------------	---	------------------------	--------------------

Remarks

Resistivity value indicates less than 10 Ohm-m up to deep part.  
It suggests existence of clay or the aquifer that has bad water quality.  
Therefore, recommended drilling point is not decided.

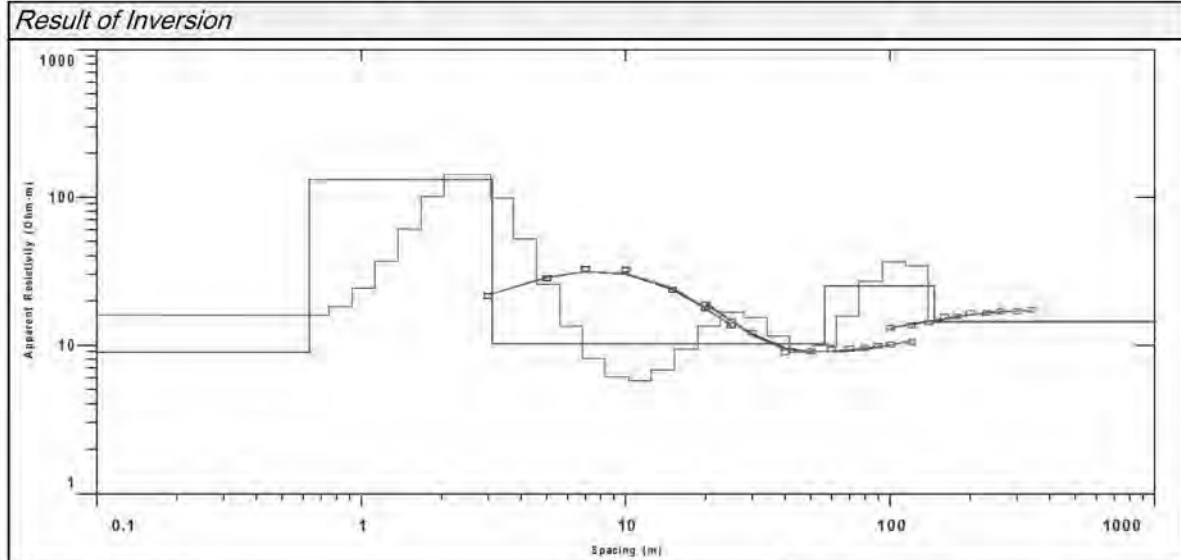
LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m



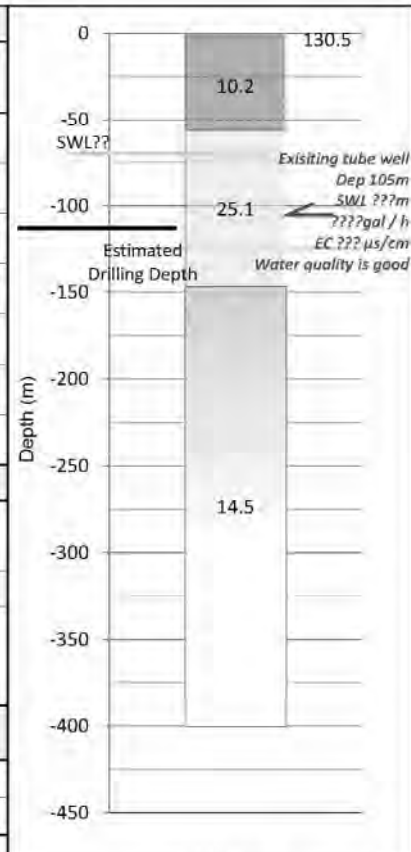
### Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

Village ID	MG2-34	Survey Date	06/06/2015
Village	Nyaunggone	Coordinate	X : 732,712
Township	Natmauk	(WGS 84 UTM Zone 46N)	Y : 2,256,221
Region	Magway	Elevation (m)	Z : 303



**Resistivity Model**

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	8.9	0.6	-0.6	Top Soil
2nd	130.5	2.5	-3.1	Irrawady formation (Sand with Gravel)
3rd	10.2	53.5	-56.6	Irrawady or Pegu group (Silt : Unturated?)
4th	25.1	89.8	-146.4	Irrawady or Pegu group (Sand : Saturated) Pegu Group?
5th	14.5			(Mudstone?)
6th				
7th				



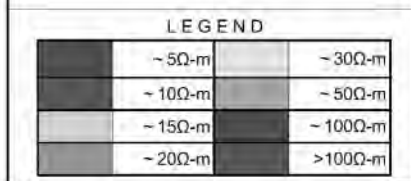
**Estimation Results of Hydrogeological Information**

Target Aquifer	Lithology	Sand (Ir?)	Estimated SWL( GL-m)	70 m
	Depth (m)	57 - 147m	Remarks:	
	Thickness (m)	>35m		
	Resistivity (Ω-m)	25.1		

**Results of Evaluation**

Estimated Drilling Depth(m)	110 m	Possibility / Priority	A : High Priority 3
-----------------------------	-------	------------------------	---------------------

**Remarks**  
Drilling depth is estimated by information of existing tube well.

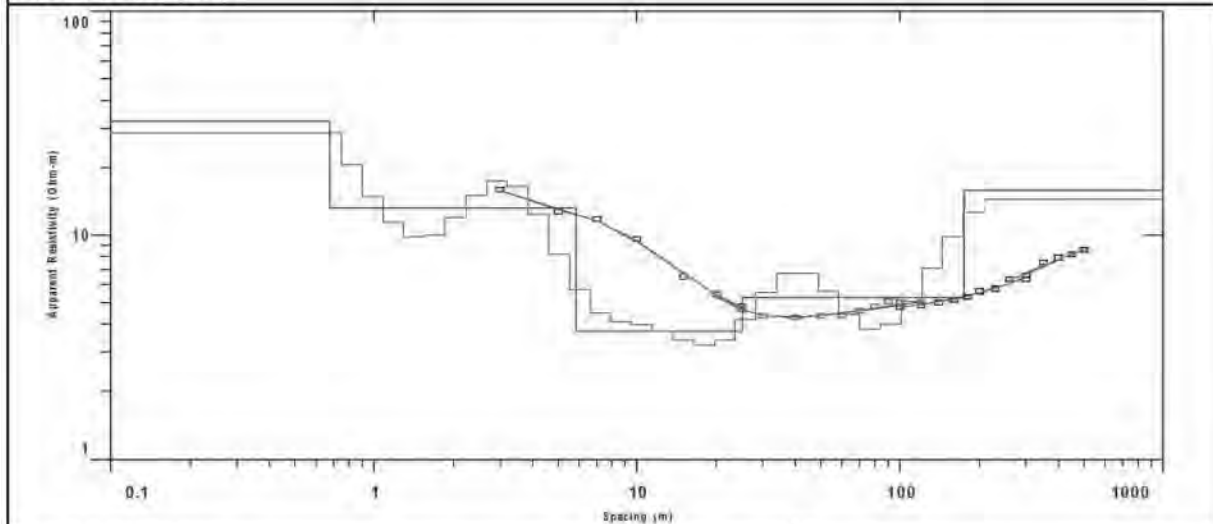




Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

Village ID	MG2-35	Survey Date	03/06/2015
Village	Kyugyaung	Coordinate	X : 744,680
Township	Natmauk	(WGS 84 UTM Zone 46N)	Y : 2,259,329
Region	Magway	Elevation (m)	Z : 241

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	32.3	0.7	-0.7	Top Soil
2nd	13.1	5.1	-5.8	Irrawady formation (Silt : Unsaured)
3rd	3.7	19.4	-25.2	Irrawady formation (Clay : Unsaured)
4th	5.3	149.7	-174.9	Irrawady formation (Sand : Saurated)
5th	15.8			
6th				
7th				

Estimation Results of Hydrogeological Information

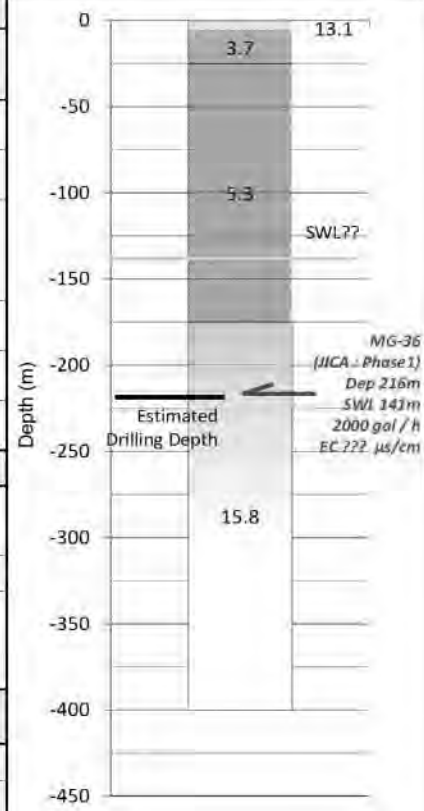
Target Aquifer	Lithology	Silty Sand (lr)	Estimated SWL( GL-m)	140m (Confined?)
	Depth (m)	>175m	Remarks:	
	Thickness (m)	>45m		
	Resistivity (Ω-m)	15.8		

Results of Evaluation

Estimated Drilling Depth(m)	220 m	Possibility / Priority	B : Medium Priority 3
-----------------------------	-------	------------------------	-----------------------

Remarks

Drilling depth is estimated by near existing tube well.  
(It is located 3.5 km away from here.)



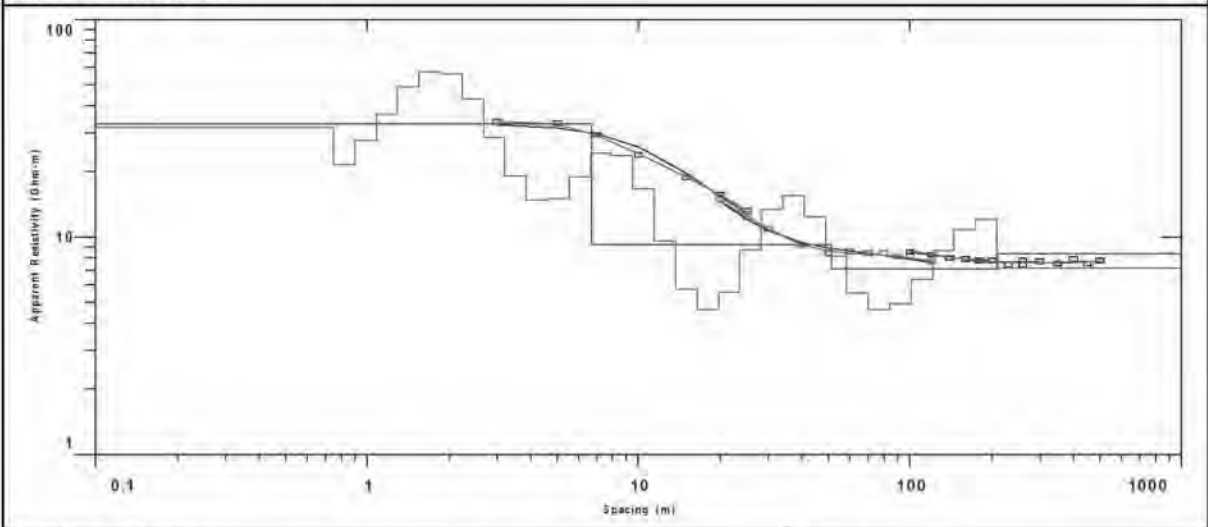
LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

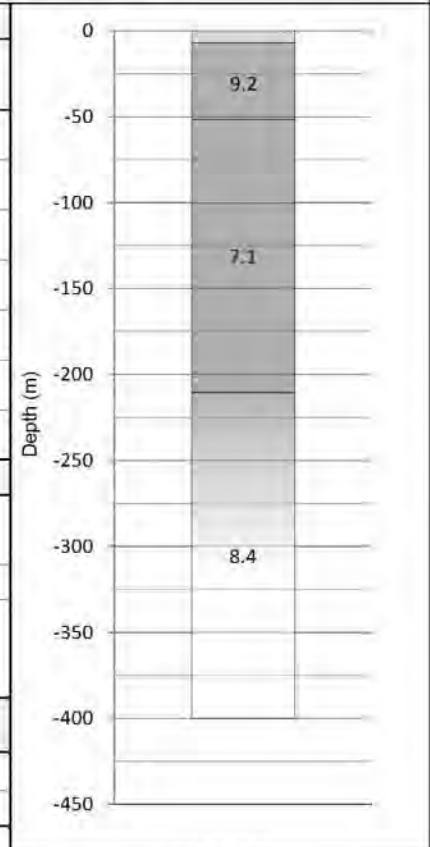
Village ID	MG2-36	Survey Date	31/05/2015
Village	Kokkohla	Coordinate	X : 765,975
Township	Taungdwingyi	(WGS 84 UTM Zone 46N)	Y : 2,218,607
Region	Magway	Elevation (m)	Z : 153

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	33.1	6.7	-6.7	Top Soil
2nd	9.2	44.8	-51.4	Alluvium deposit (Clay - Silt)
3rd	7.1	159.0	-210.4	Irrawady formation (Clay)
4th	8.4			Irrawady formation (Clay)
5th				
6th				
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	-	Estimated SWL( GL-m)	?
	Depth (m)	-	Remarks:	
	Thickness (m)	-		
	Resistivity (Ω-m)	-		

Results of Evaluation

Estimated Drilling Depth(m)	-	Possibility / Priority	D : No possibility
-----------------------------	---	------------------------	--------------------

Remarks

Resistivity value indicates less than 10 Ohm-m up to deep part. It suggests existence of clay or the aquifer that has bad water quality. Therefore, recommended drilling point is not decided.

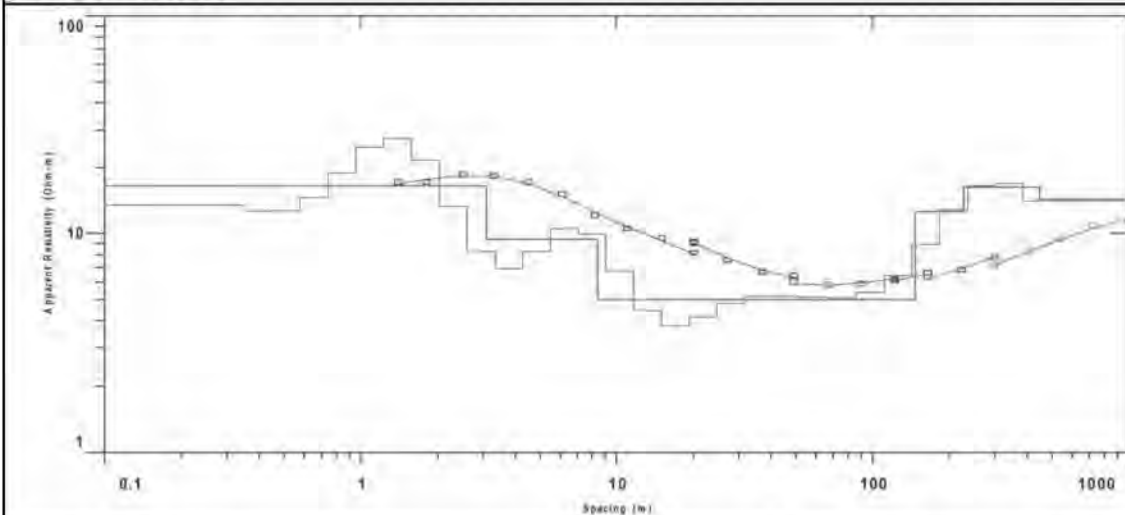
LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

Village ID	MG2-38	Survey Date	01/06/2015
Village	Htaukkyantgwin	Coordinate	X : 772,133
Township	Taungdwingyi	(WGS 84 UTM Zone 46N)	Y : 2,184,859
Region	Magway	Elevation (m)	Z : 168

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	16.6	3.3	-3.3	Top Soil
2nd	8.4	7.1	-10.4	Irrawady formation (Silt - Clay)
3rd	4.7	90.8	-101.2	Irrawady formation (Silt - Clay)
4th	8.6	59.6	-160.8	Irrawady formation (Silt - Clay)
5th	10.7	129.1	-289.9	Irrawady formation (Silt : Saturated)
6th	18.7	187.0	-476.9	Irrawady formation (Sand : Saturated)
7th	13.7			Irrawady formation (Silt - Sand : Saturated)

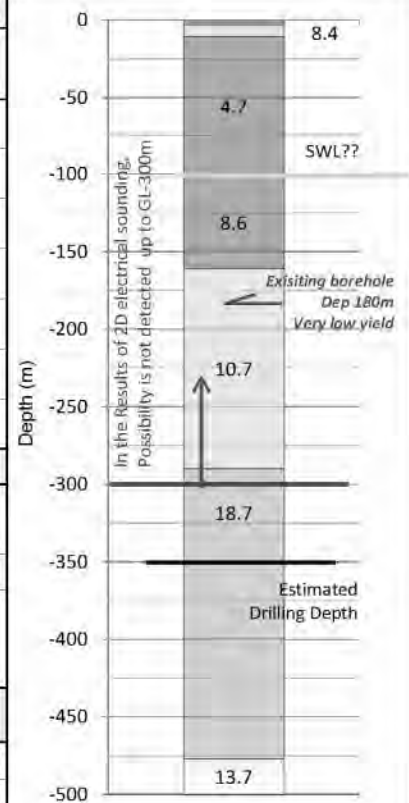
Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand (Ir)	Estimated SWL( GL-m)	100 m
	Depth (m)	290 - 477m	Remarks:	
	Thickness (m)	>30m		
	Resistivity (Ω-m)	18.7		

Results of Evaluation

Estimated Drilling Depth(m)	320 m	Possibility / Priority	A : High Priority 1
-----------------------------	-------	------------------------	---------------------

Remarks



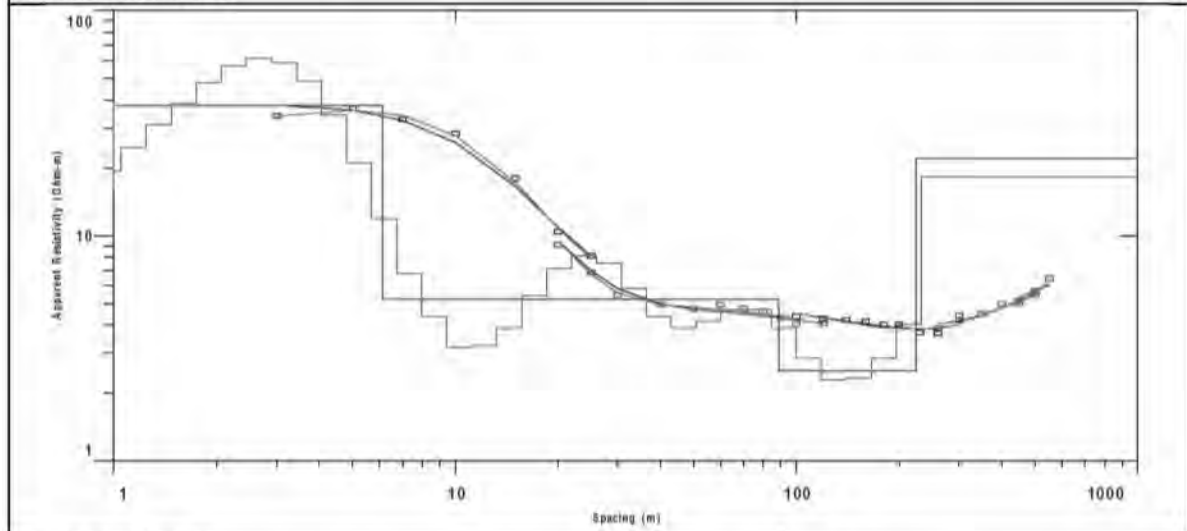
LEGEND

~ 50Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

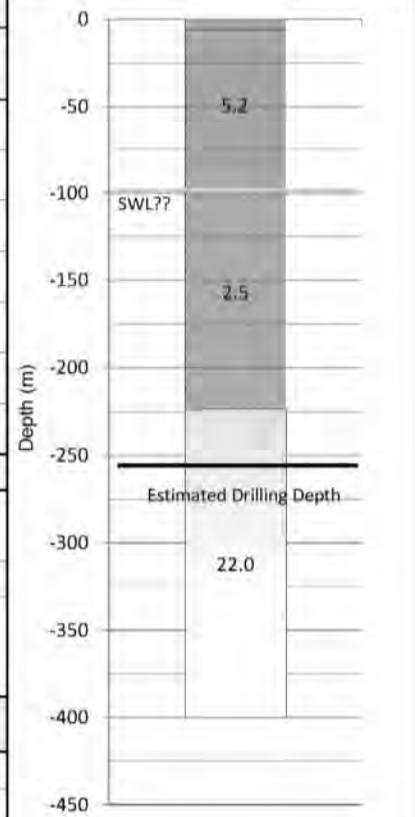
Village ID	MG2-39	Survey Date	30/05/2015
Village	Hlebwegyi	Coordinate	X : 747,687
Township	Taungdwingyi	(WGS 84 UTM Zone 46N)	Y : 2,200,683
Region	Magway	Elevation (m)	Z : 147

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	37.7	6.1	-6.1	Top Soil
2nd	5.2	83.0	-89.1	Irrawady formation (Clay)
3rd	2.5	134.4	-223.6	Irrawady formation (Clay)
4th	22.0			Irrawady formation (Sand : Saturated)
5th				
6th				
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand (lr)	Estimated SWL( GL-m)	100m (Confined?)
	Depth (m)	>225m	Remarks:	
	Thickness (m)	>30m		
	Resistivity (Ω-m)	22.0		

Results of Evaluation

Estimated Drilling Depth(m)	255 m	Possibility / Priority	A : High Priority 2
-----------------------------	-------	------------------------	---------------------

Remarks

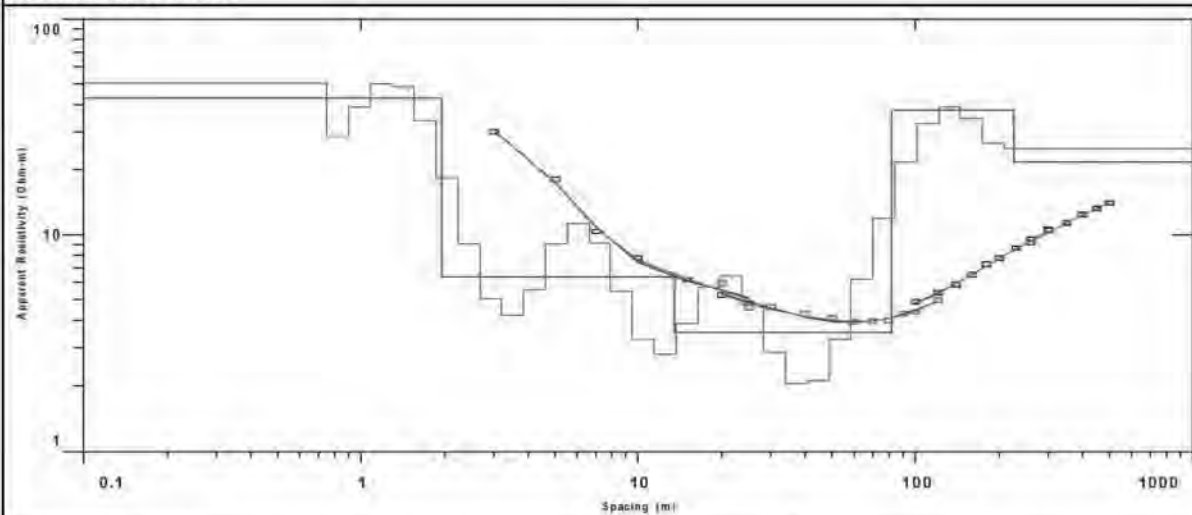
LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

Analysis Results of Vertical Electrical Sounding (Schlumberger Configuration)

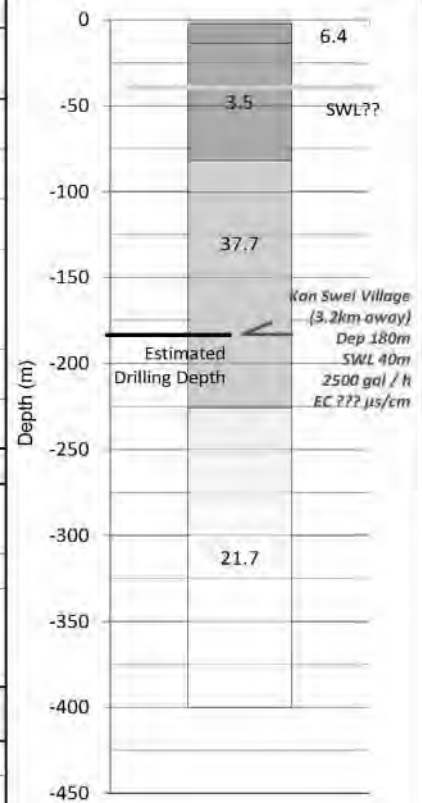
Village ID	MG2-40	Survey Date	31/05/2015
Village	Yayhtwetgyi	Coordinate	X : 743,050
Township	Taungdwingyi	(WGS 84 UTM Zone 46N)	Y : 2,197,425
Region	Magway	Elevation (m)	Z : 230

Result of Inversion



Resistivity Model

Layer	Resistivity (Ω-m)	Thickness (m)	Depth (GL -m)	Estimated Facies
1st	43.2	2.0	-2.0	Top Soil
2nd	6.4	11.6	-13.5	Irrawady formation (Clay)
3rd	3.5	68.1	-81.7	Irrawady formation (Clay)
4th	37.7	143.9	-225.5	Irrawady formation (Sand : Saturated))
5th	21.7			
6th				
7th				



Estimation Results of Hydrogeological Information

Target Aquifer	Lithology	Sand (Ir)	Estimated SWL( GL-m)	40m (Confined)
	Depth (m)	82 - 226m	Remarks:	
	Thickness (m)	>95m		
	Resistivity (Ω-m)	37.7		

Results of Evaluation

Estimated Drilling Depth(m)	180 m	Possibility / Priority	A : High Priority 3
-----------------------------	-------	------------------------	---------------------

Remarks

Drilling depth is estimated by information of existing tube well.

LEGEND

~ 5Ω-m	~ 30Ω-m
~ 10Ω-m	~ 50Ω-m
~ 15Ω-m	~ 100Ω-m
~ 20Ω-m	>100Ω-m

## 2D (Dimensional) Electric Survey

SA2-17	Kine Village
MA2-01	Htantawgyi Village
MA2-06	Kuywar Village
MA2-11	Kaungzin Village
MA2-14	Kyaungkangyibin Village
MA2-15	Nyaunggone Village
MA2-16	Chaungnar Village
MA2-18	Kyaukkartaungkone Village
MA2-21	Tharyarmaing Village
MA2-32	Phoenekan Village
MA2-33	Nyaungbinthar Village
MA2-36	Aleywar-2 Village
MA2-38	Lelgyi(Ma) Village
MG2-12	Zeebwar Village
MG2-19	Legyinyo Village
MG2-28	Htonepoutchine Village
MG2-30	Sellel Village
MG2-33	Wayonegone Village
MG2-37	Kangyigone Village
MG2-38	Htaukkyantgwin Village

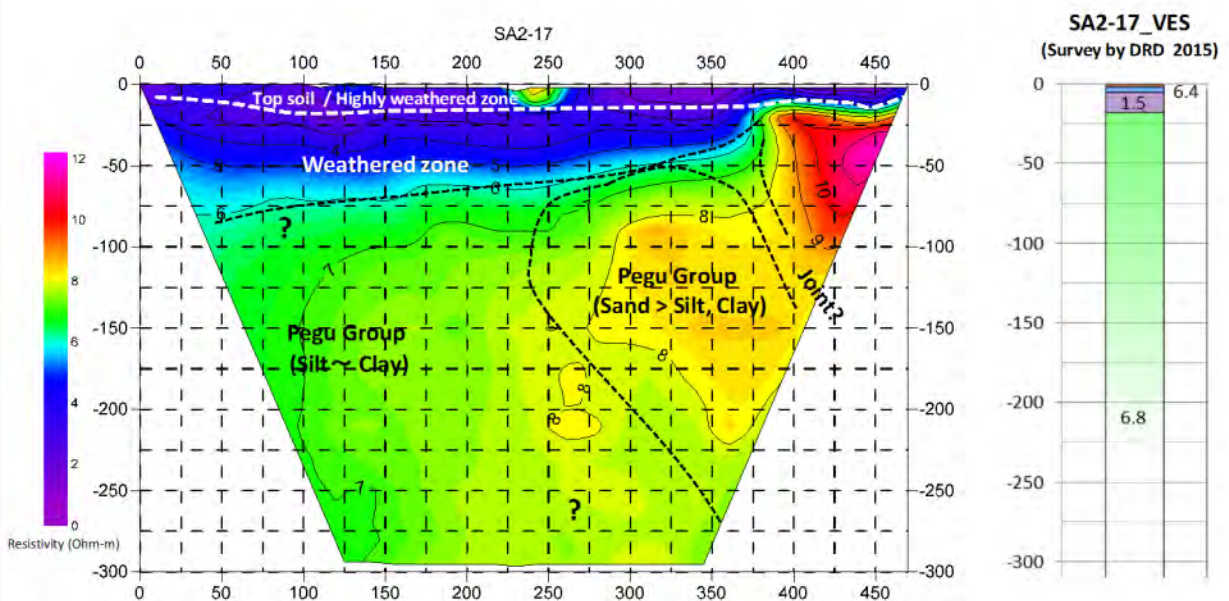


Region	Sagaing	Township	Salingyi	VillageTracks	Moe Kyo Pyin	Village	Kine	ID	SA2-17
--------	---------	----------	----------	---------------	--------------	---------	------	----	--------

Survey Location Map (Satellite Image)



Resistivity Profile



Resistivity value indicates less than 10 Ohm-m up to deep part.  
It suggests existence of clay or the aquifer that has bad water quality.  
Therefore, recommended drilling point is not decided.

Survey information		Results of Evaluation	
Surveyer	Kengo OHASHI	Possibility	D : No possibility
Equipment	McOHM Profiler-4	Estimated Drilling Depth	-
Survey Date	29/05/2015	Priority	-

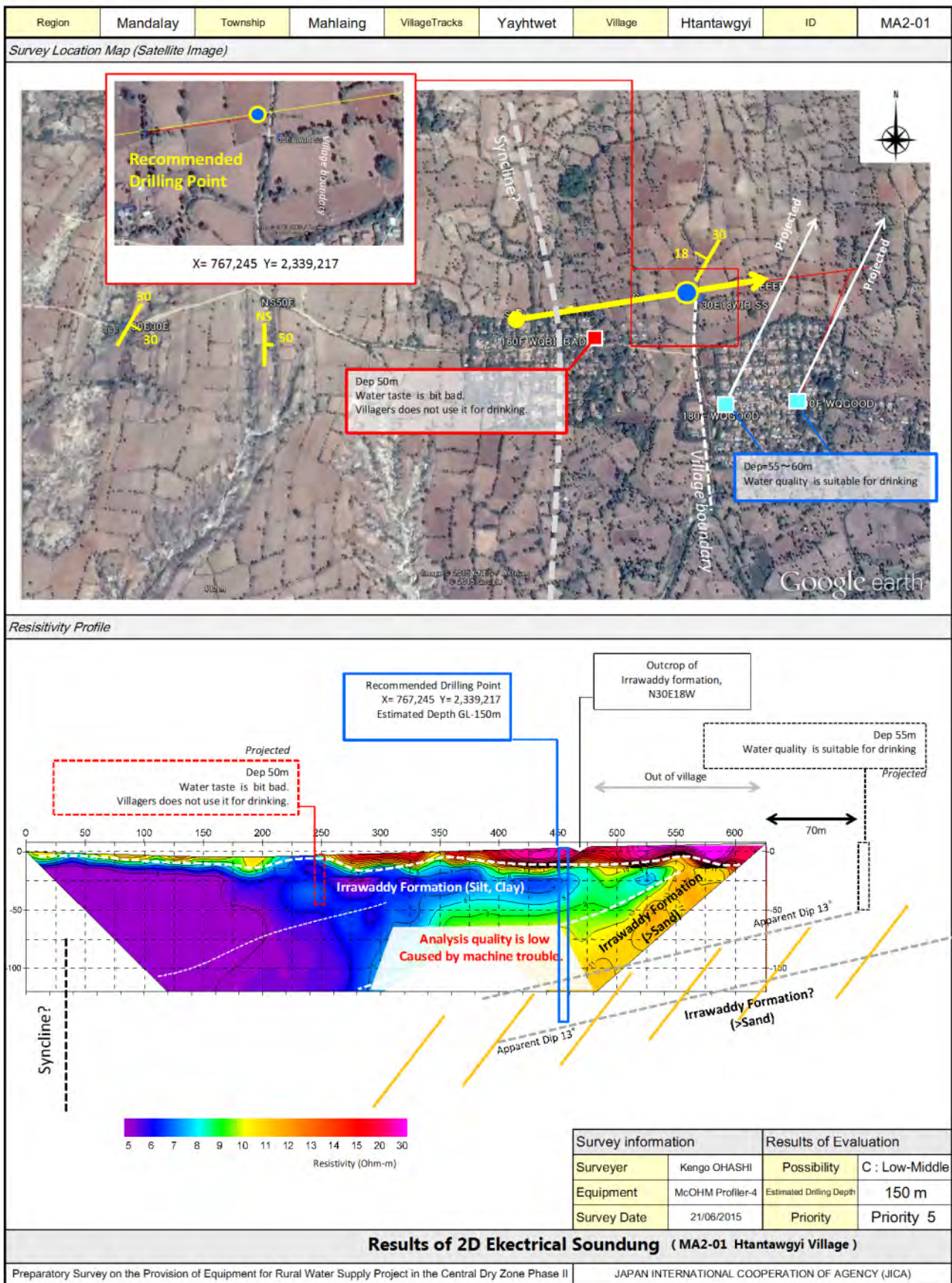
**Results of 2D Ekectrical Sounding ( SA2-17 Kine Village )**

Preparatory Survey on the Provision of Equipment for Rural Water Supply Project in the Central Dry Zone Phase II

JAPAN INTERNATIONAL COOPERATION OF AGENCY (JICA)

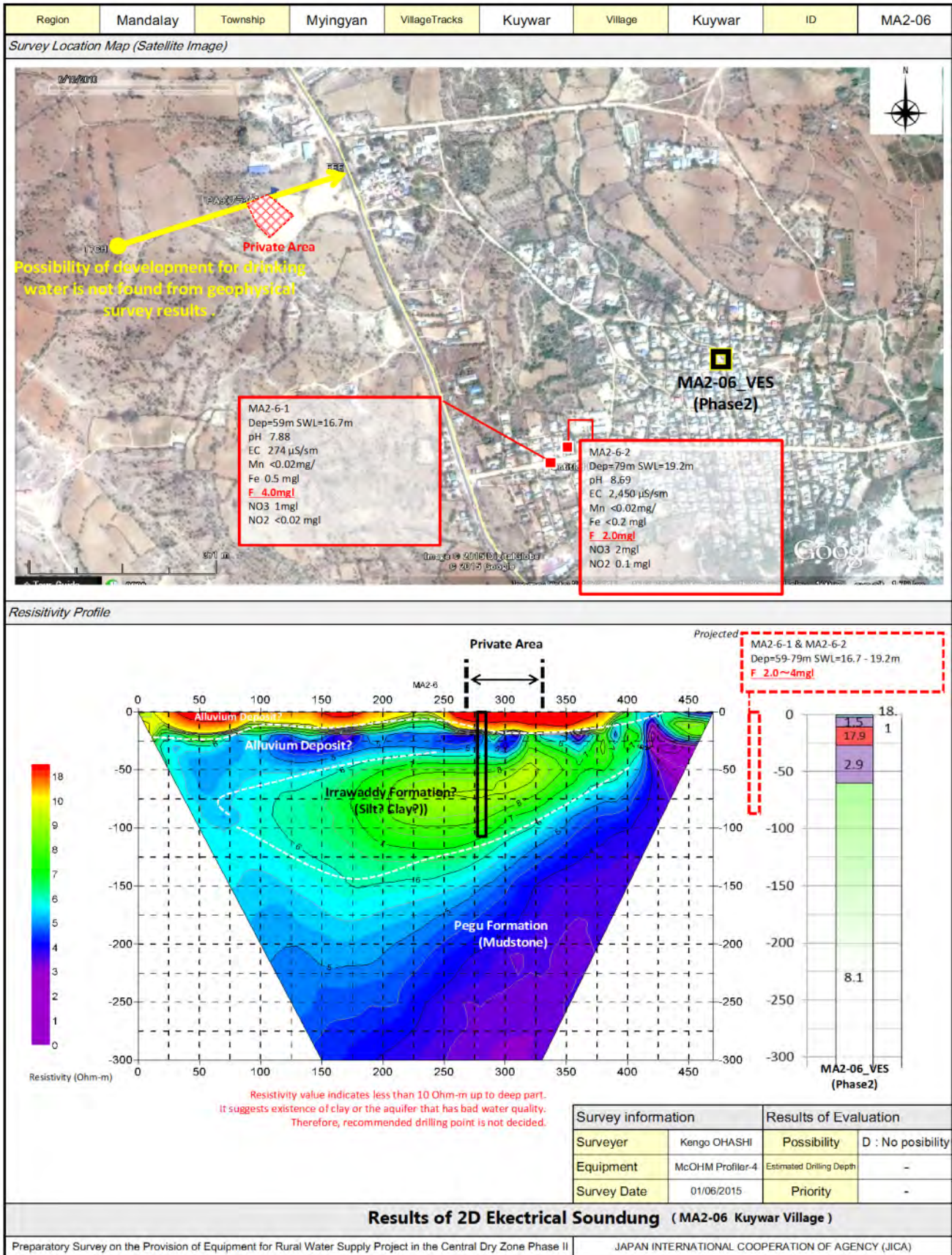
SA2-17 Kine Village





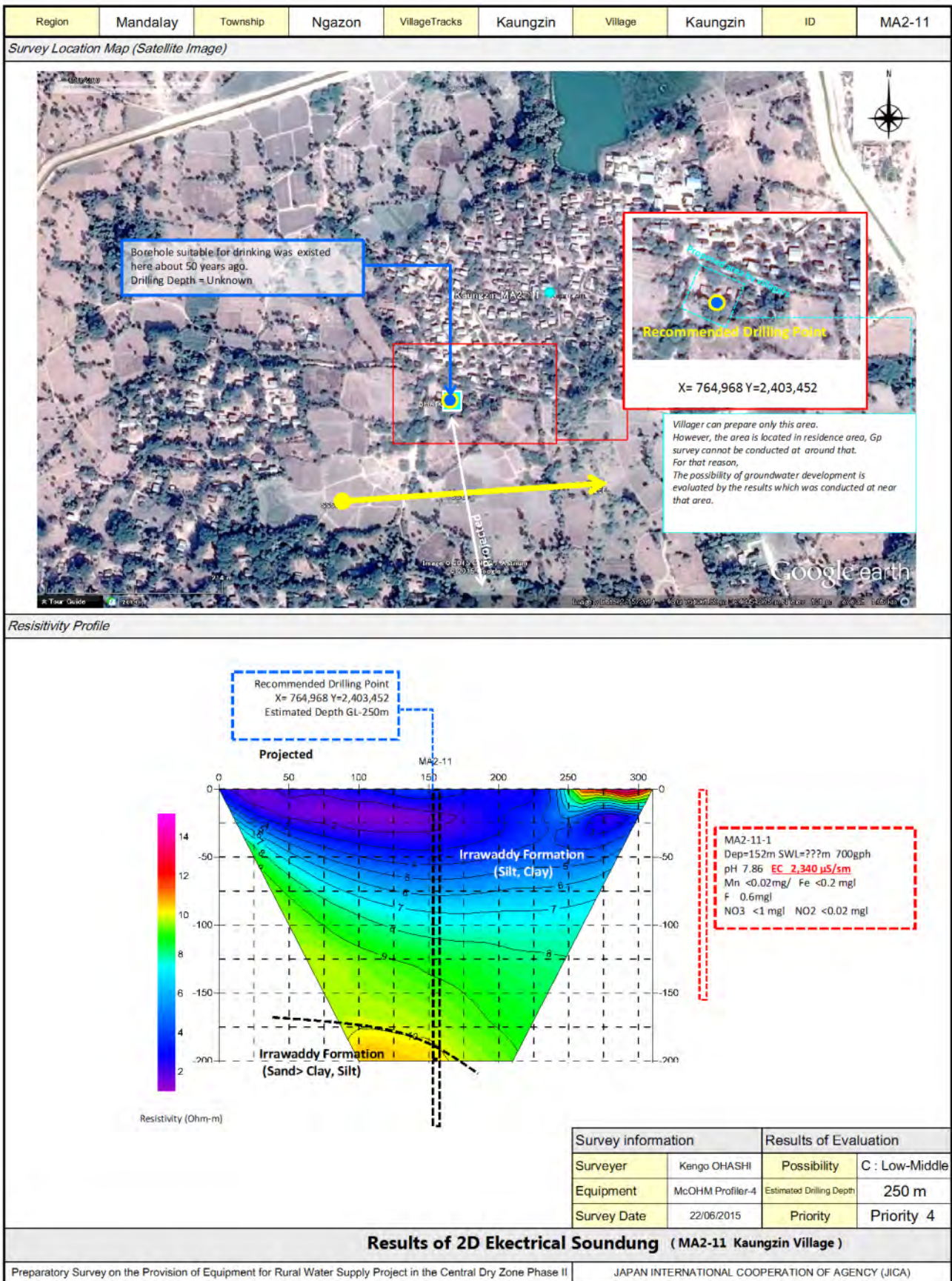
MA2-01 Htantawgyi Village





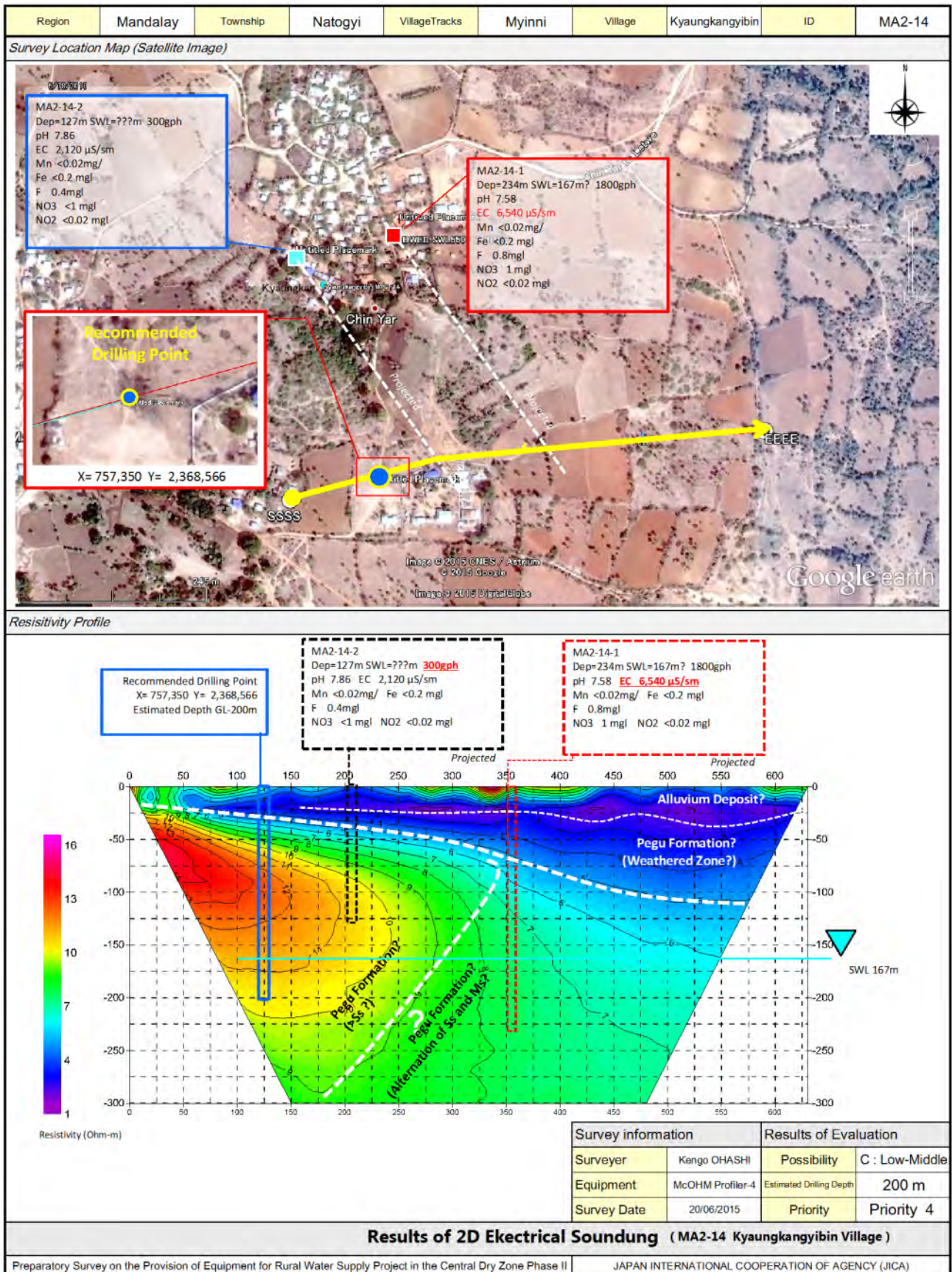
MA2-06 Kuywar Village





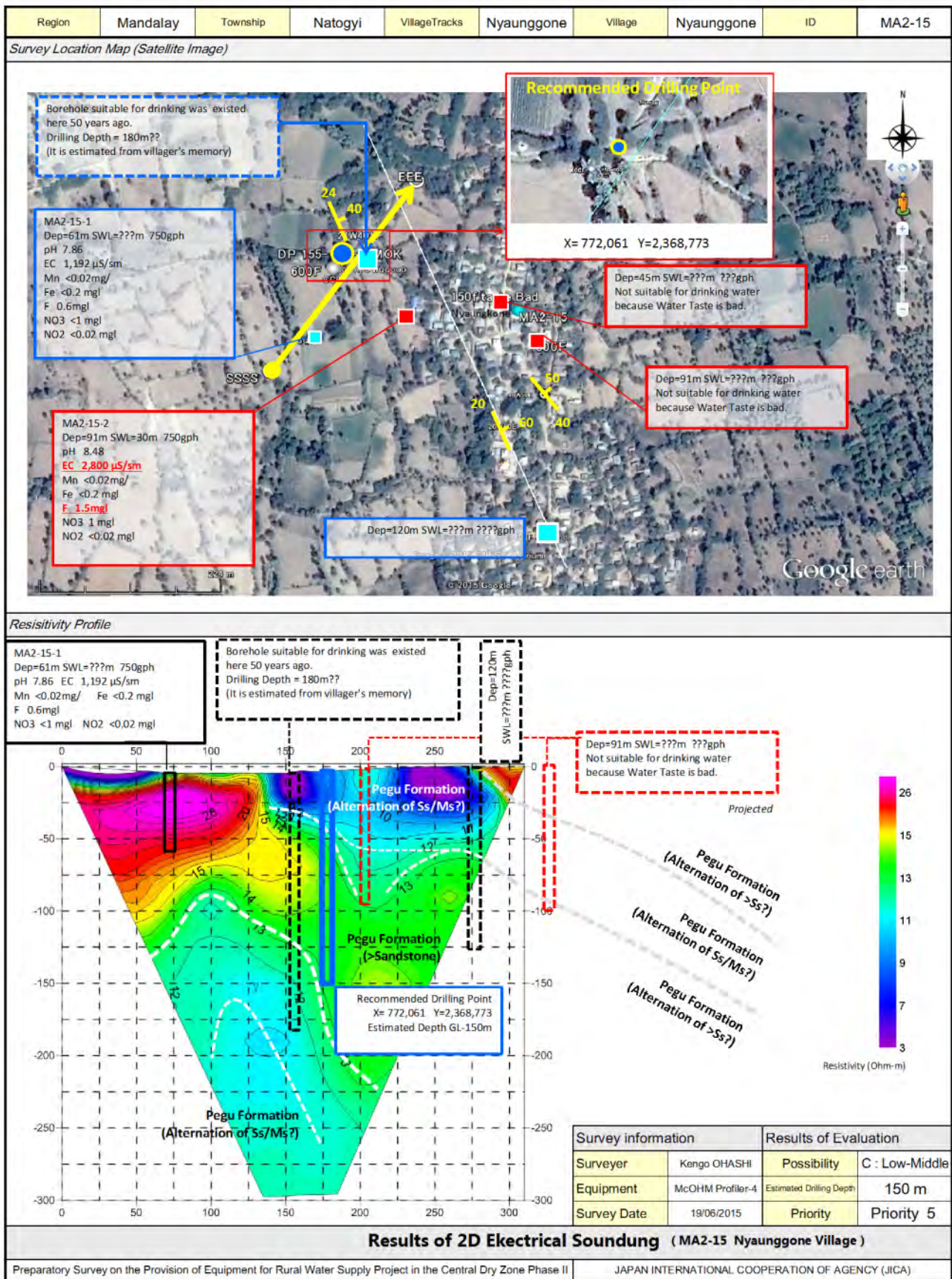
MA2-11 Kaungzin Village





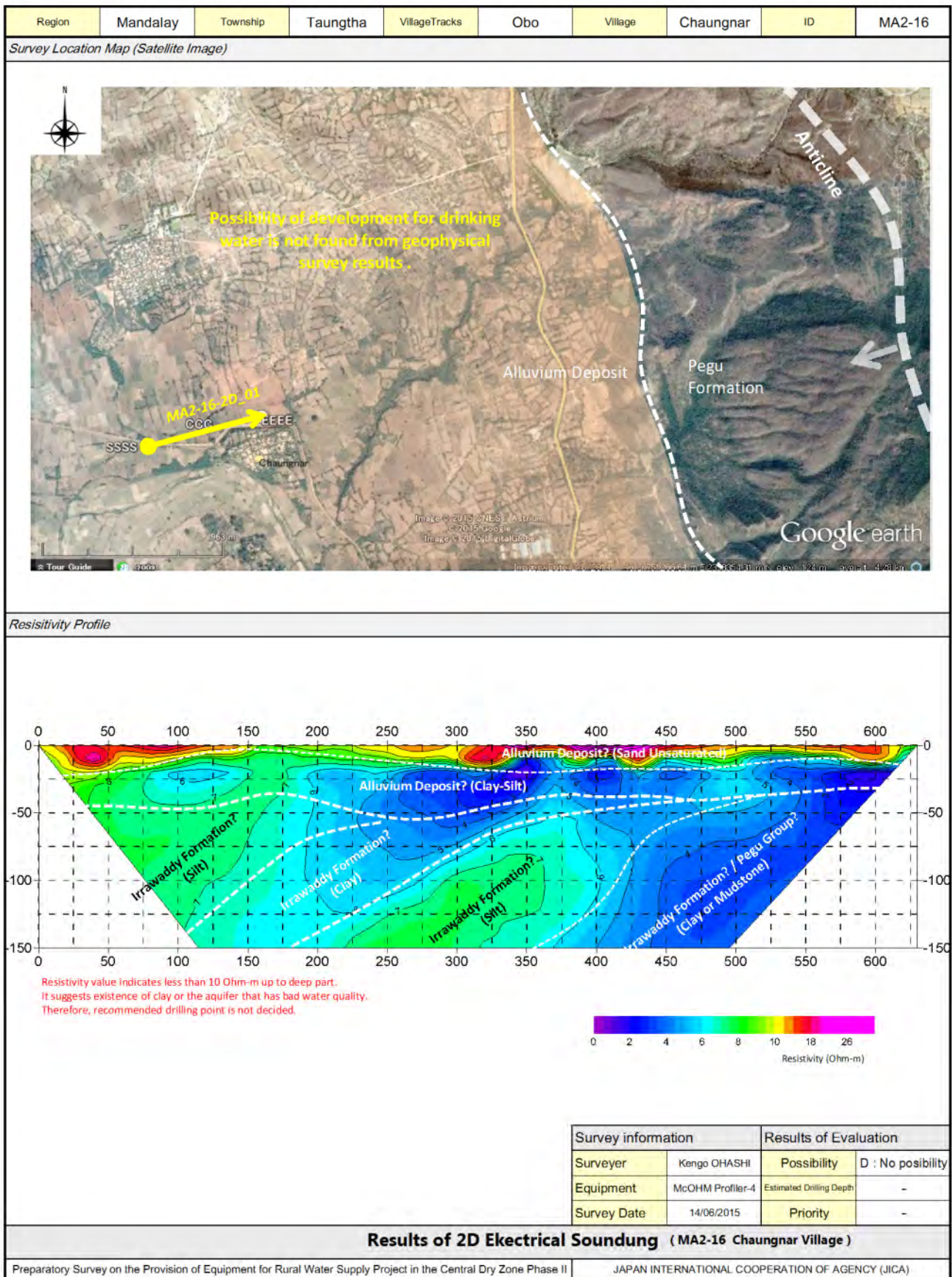
MA2-14 Kyaungkangyibin Village





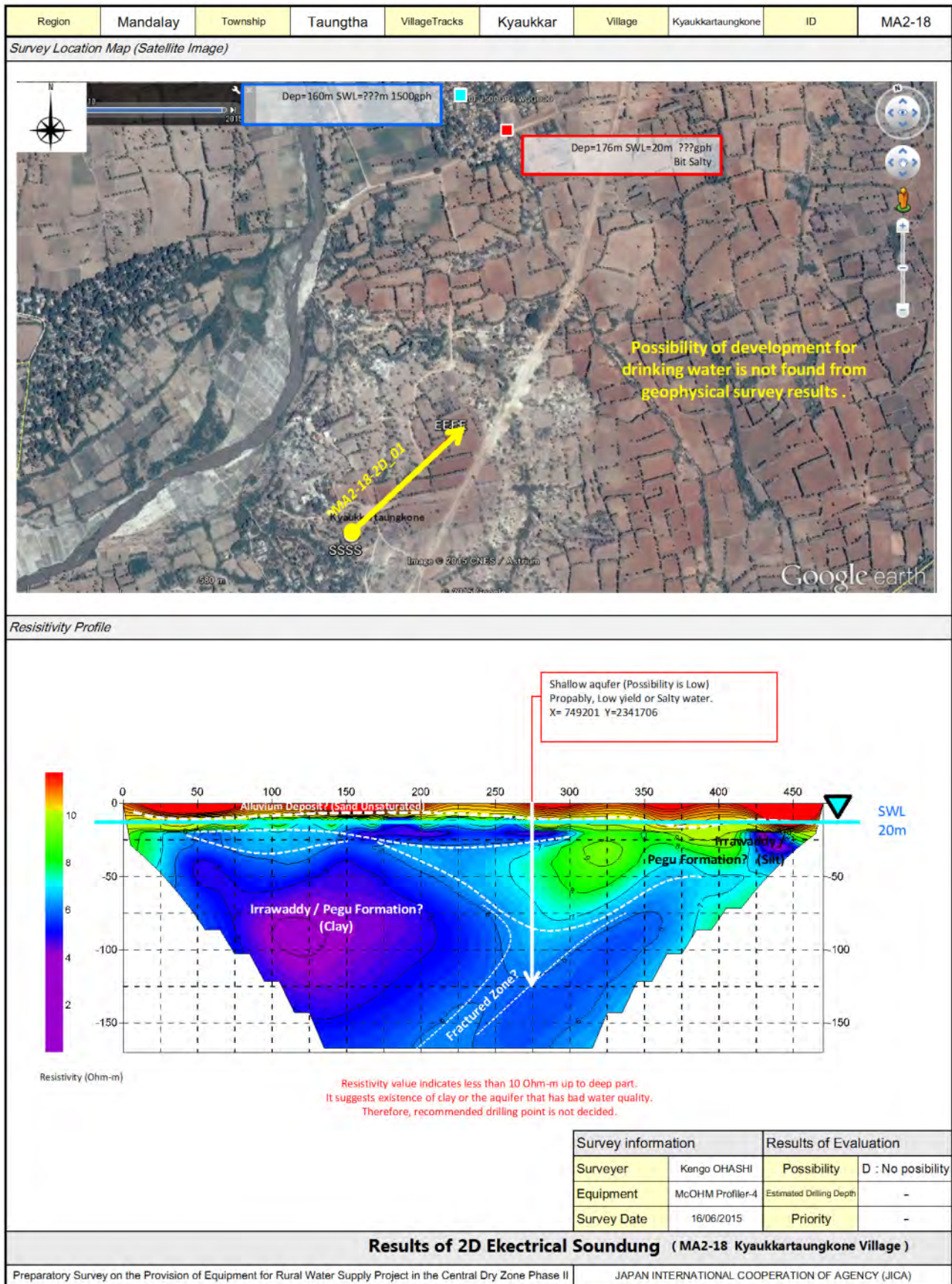
MA2-15 Nyaunggone Village





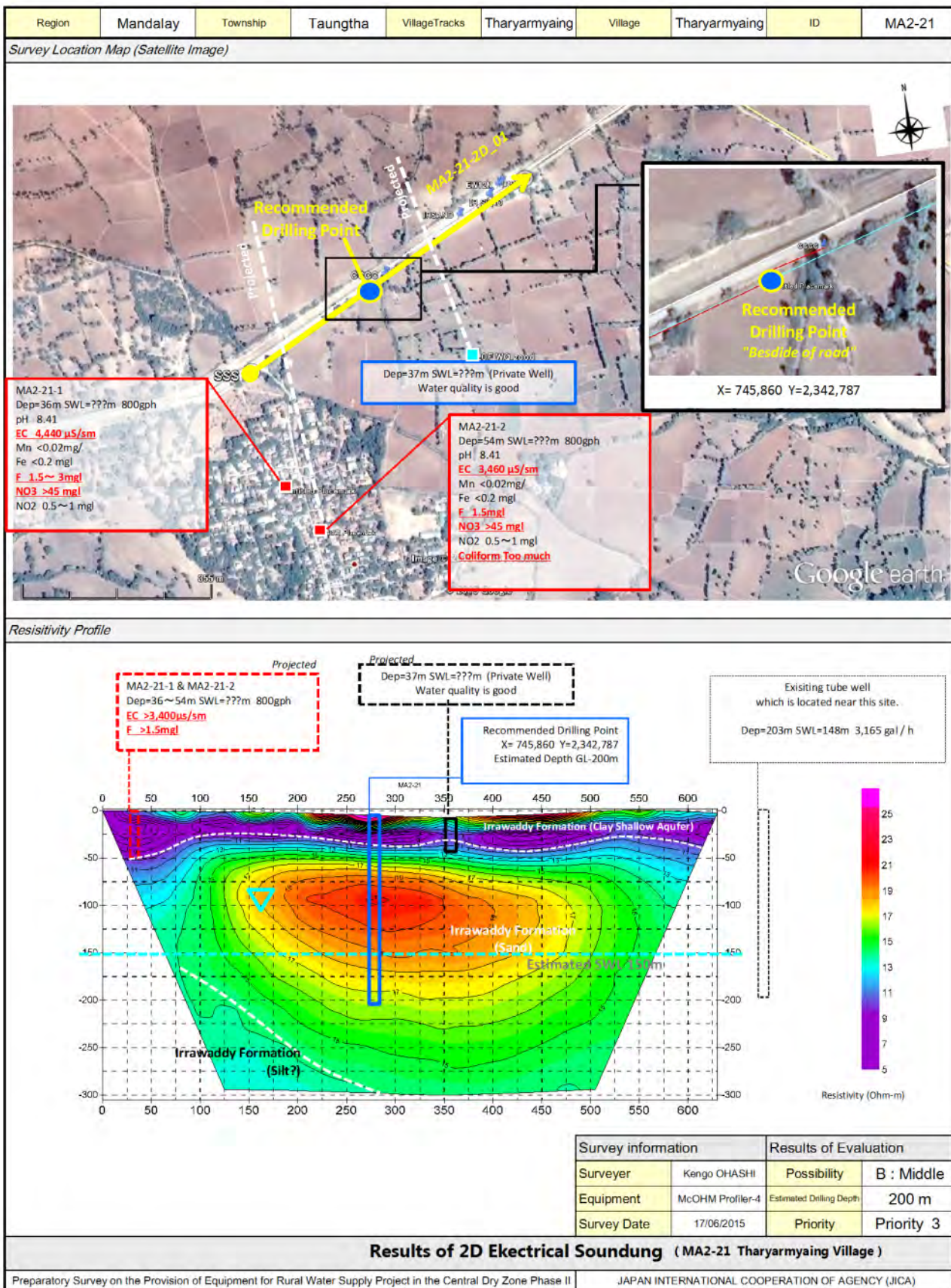
MA2-16 Chaungnar Village





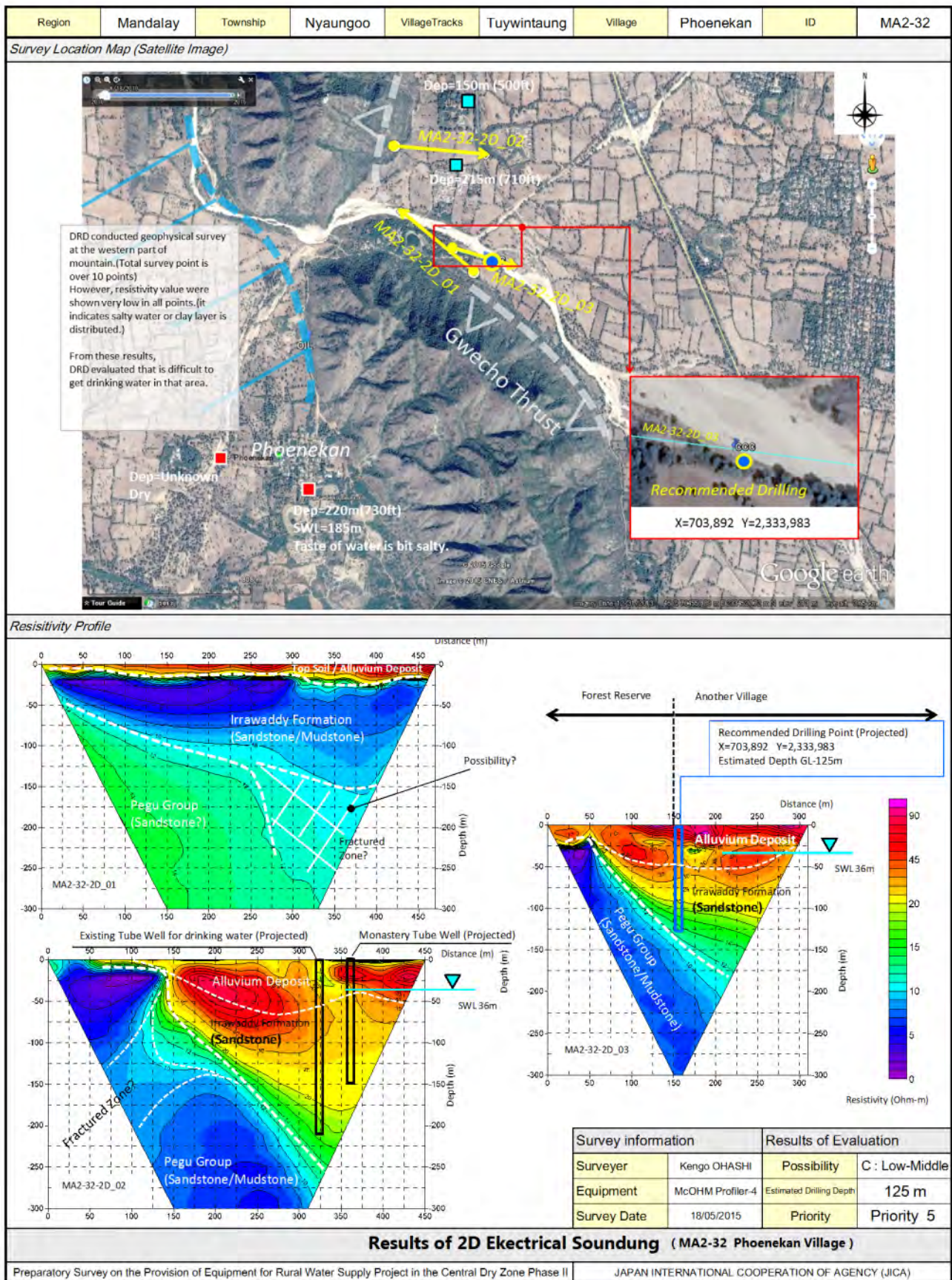
MA2-18 Kyaukkartaungkone Village





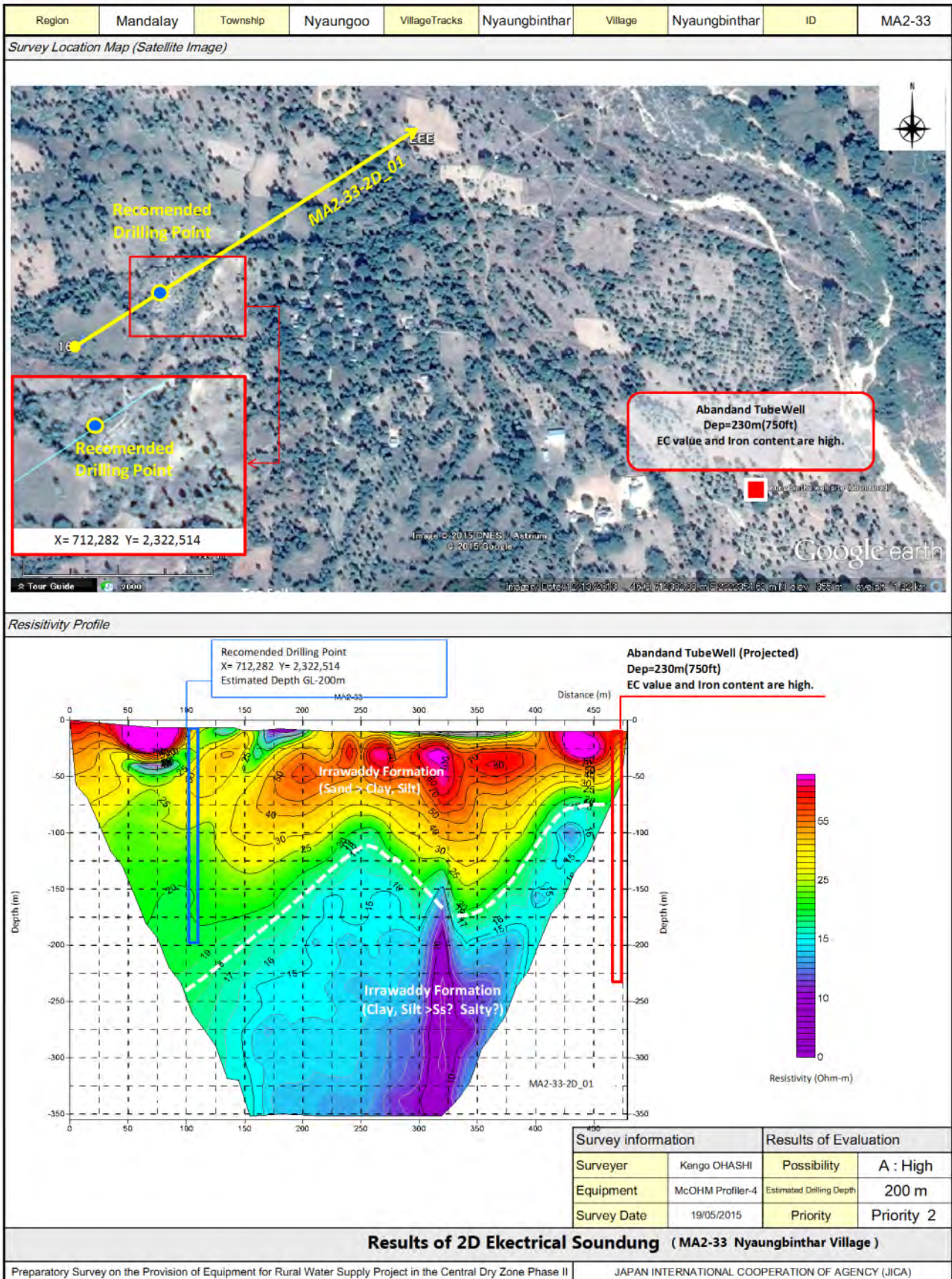
MA2-21 Tharyarmaing Village





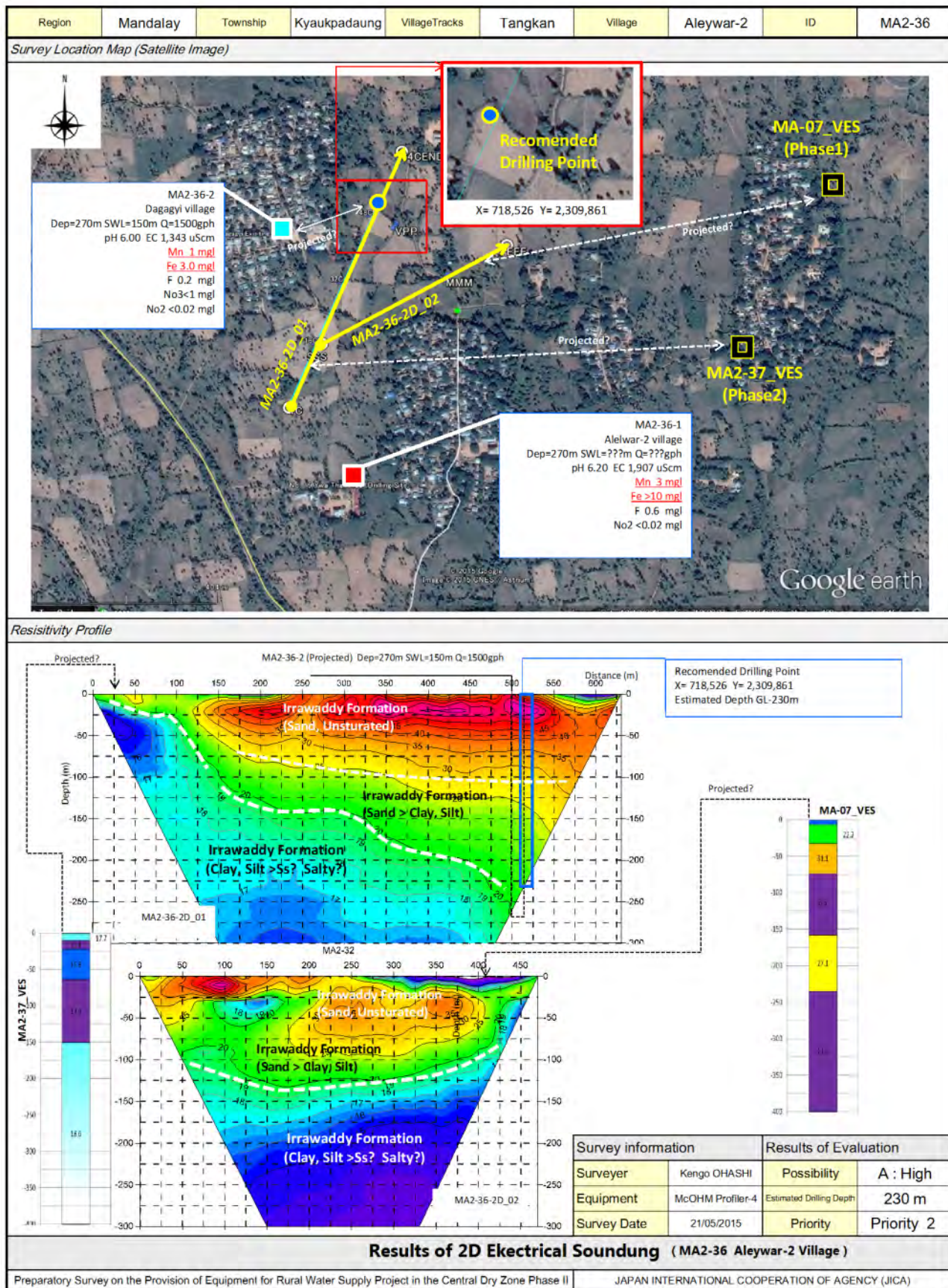
MA2-32 Phoenekan Village





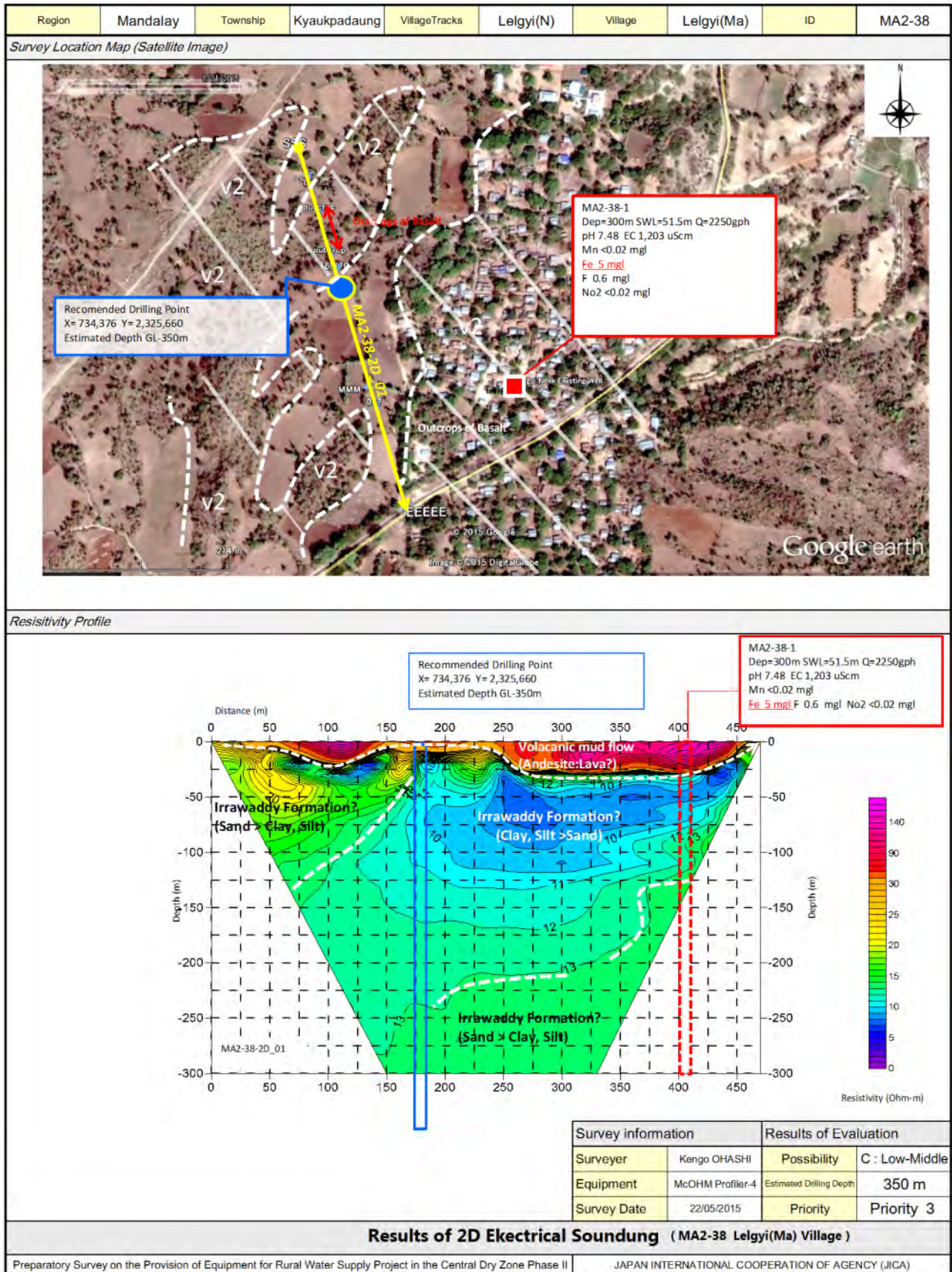
MA2-33 Nyaungbinthar Village





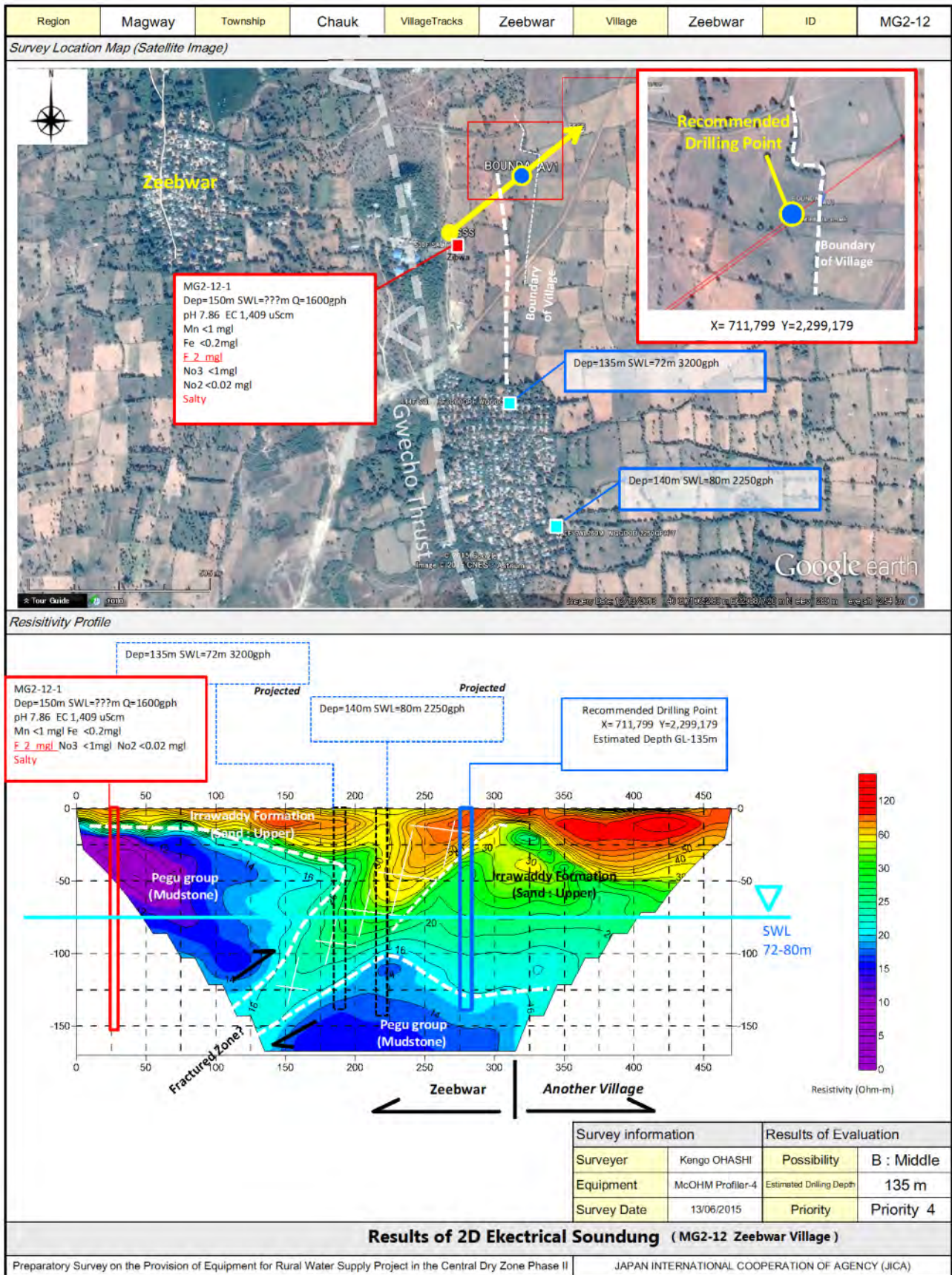
MA2-36 Aleywar-2 Village





MA2-38 Lelgyi(Ma) Village



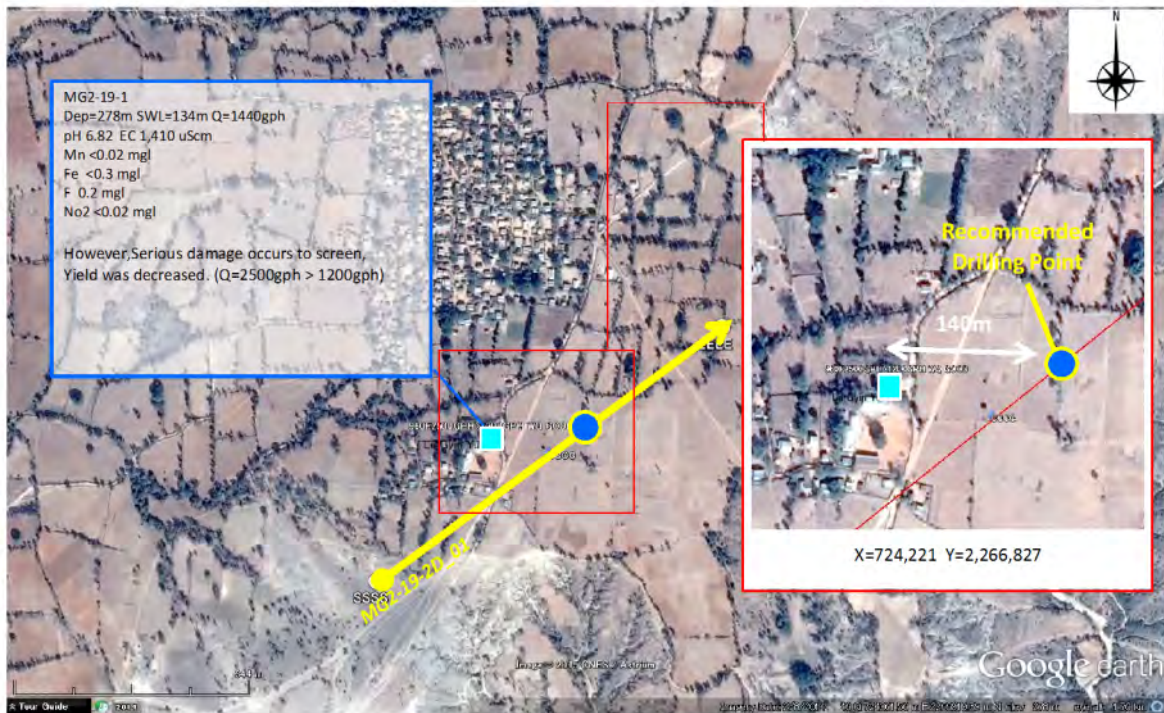


MG2-12 Zeebwar Village

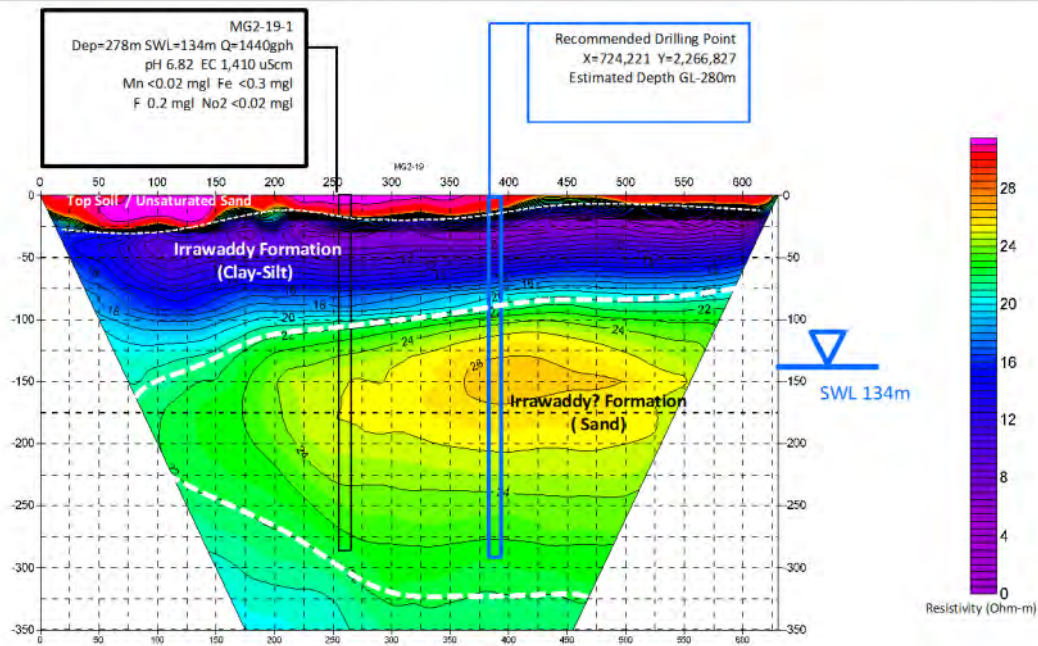


Region	Magway	Township	Yenangyaung	VillageTracks	Indaw	Village	Legyinyo	ID	MG2-19
--------	--------	----------	-------------	---------------	-------	---------	----------	----	--------

Survey Location Map (Satellite Image)



Resistivity Profile



Survey information		Results of Evaluation	
Surveyer	Kengo OHASHI	Possibility	A : High
Equipment	McOHM Profiler-4	Estimated Drilling Depth	280 m
Survey Date	10/06/2015	Priority	Priority 2

**Results of 2D Ekectrical Sounding ( MG2-19 Legyinyo Village )**

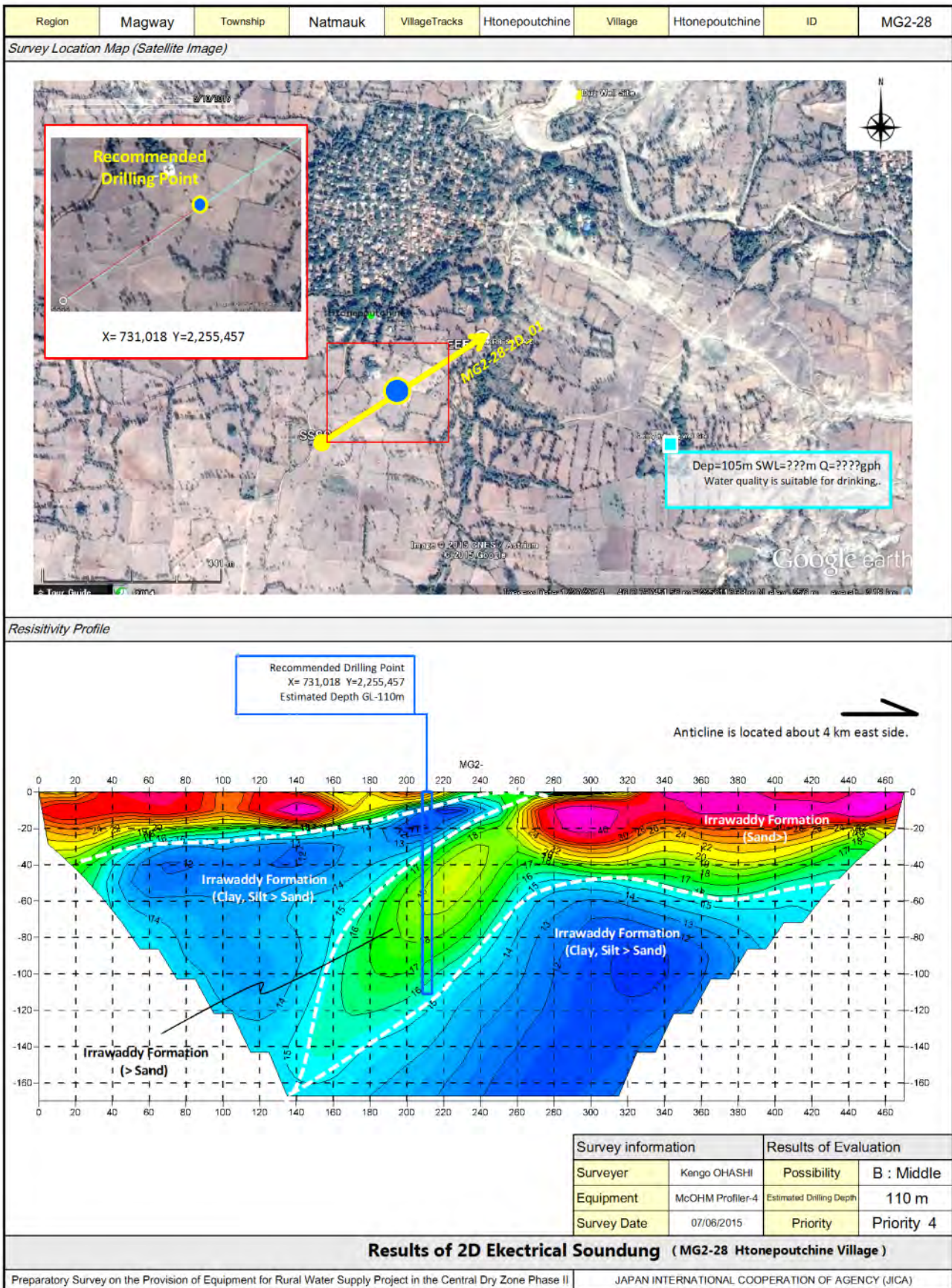
Preparatory Survey on the Provision of Equipment for Rural Water Supply Project in the Central Dry Zone Phase II

JAPAN INTERNATIONAL COOPERATION OF AGENCY (JICA)

MG2-19 Legyinyo Village



Appendix 5 Other Relevant Data



MG2-28 Htonepoutchine Village



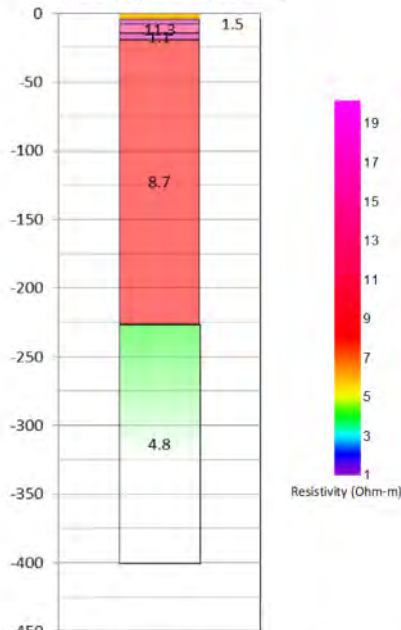
Region	Magway	Township	Natmauk	VillageTracks	Sellel	Village	Sellel	ID	MG2-30
--------	--------	----------	---------	---------------	--------	---------	--------	----	--------

Survey Location Map (Satellite Image)



Resistivity Profile

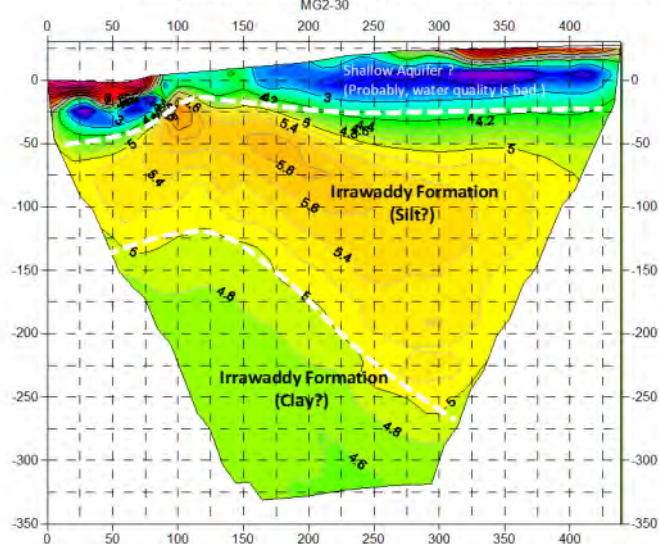
Existing VES Point  
(Survey by BAI 01/04/2013)



"From BAI report"

According to the resistivity structure of VES survey and cross section, we can be expecting the water from 5th. But resistivity is too low this means water yield water quality problem.

Very low resistivity body is located from near surface. it is suggested a possibility which are salt water or thick clay layer is distributed up to deep area. Therefore Recommended Drilling point cannot be decided in current situation



Survey information		Results of Evaluation	
Surveyer	Kengo OHASHI	Possibility	D : No possibility
Equipment	McOHM Profiler-4	Estimated Drilling Depth	-
Survey Date	09/06/2015	Priority	-

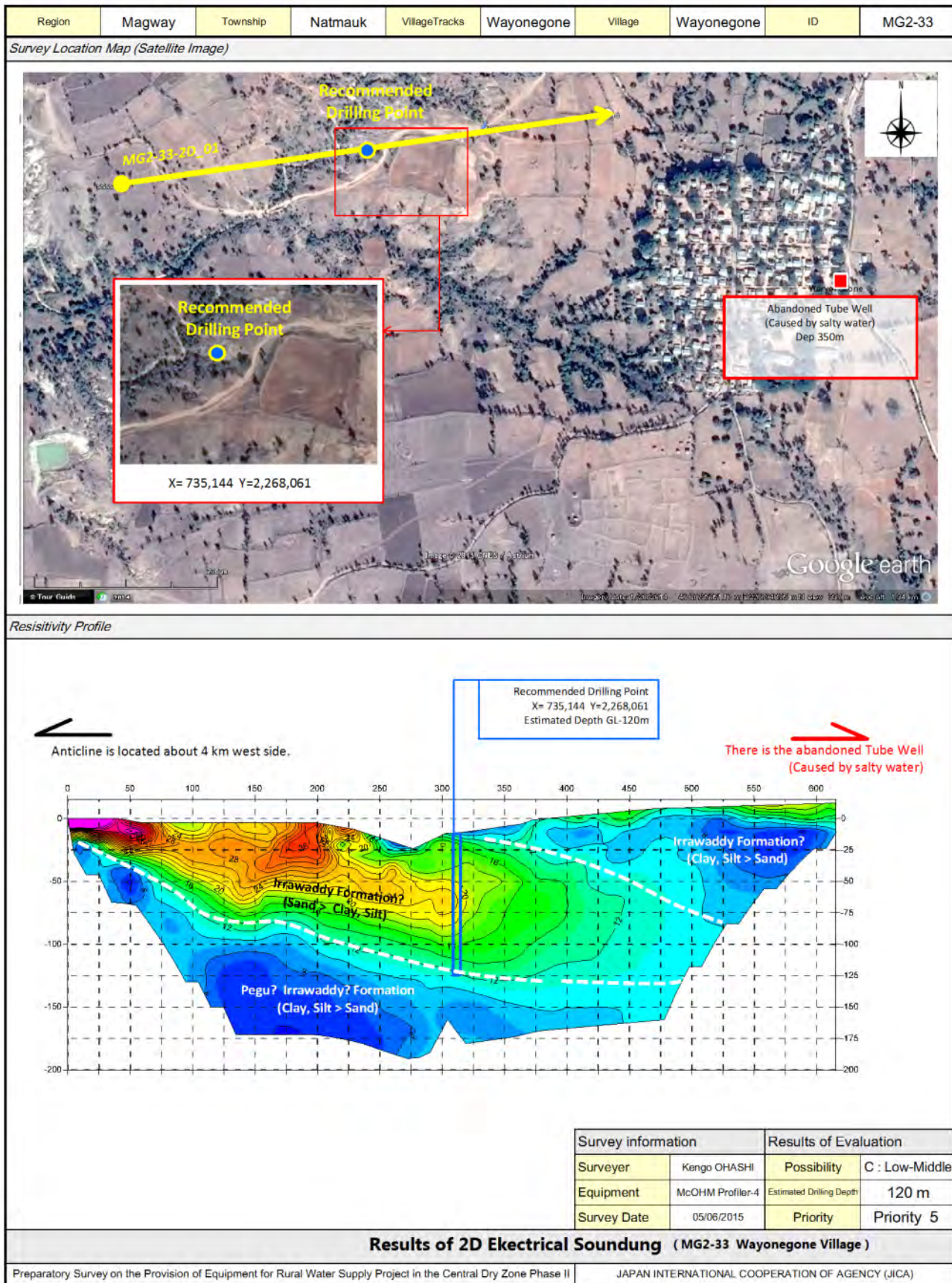
**Results of 2D Electrical Sounding (MG2-30 Sellel Village)**

Preparatory Survey on the Provision of Equipment for Rural Water Supply Project in the Central Dry Zone Phase II

JAPAN INTERNATIONAL COOPERATION OF AGENCY (JICA)

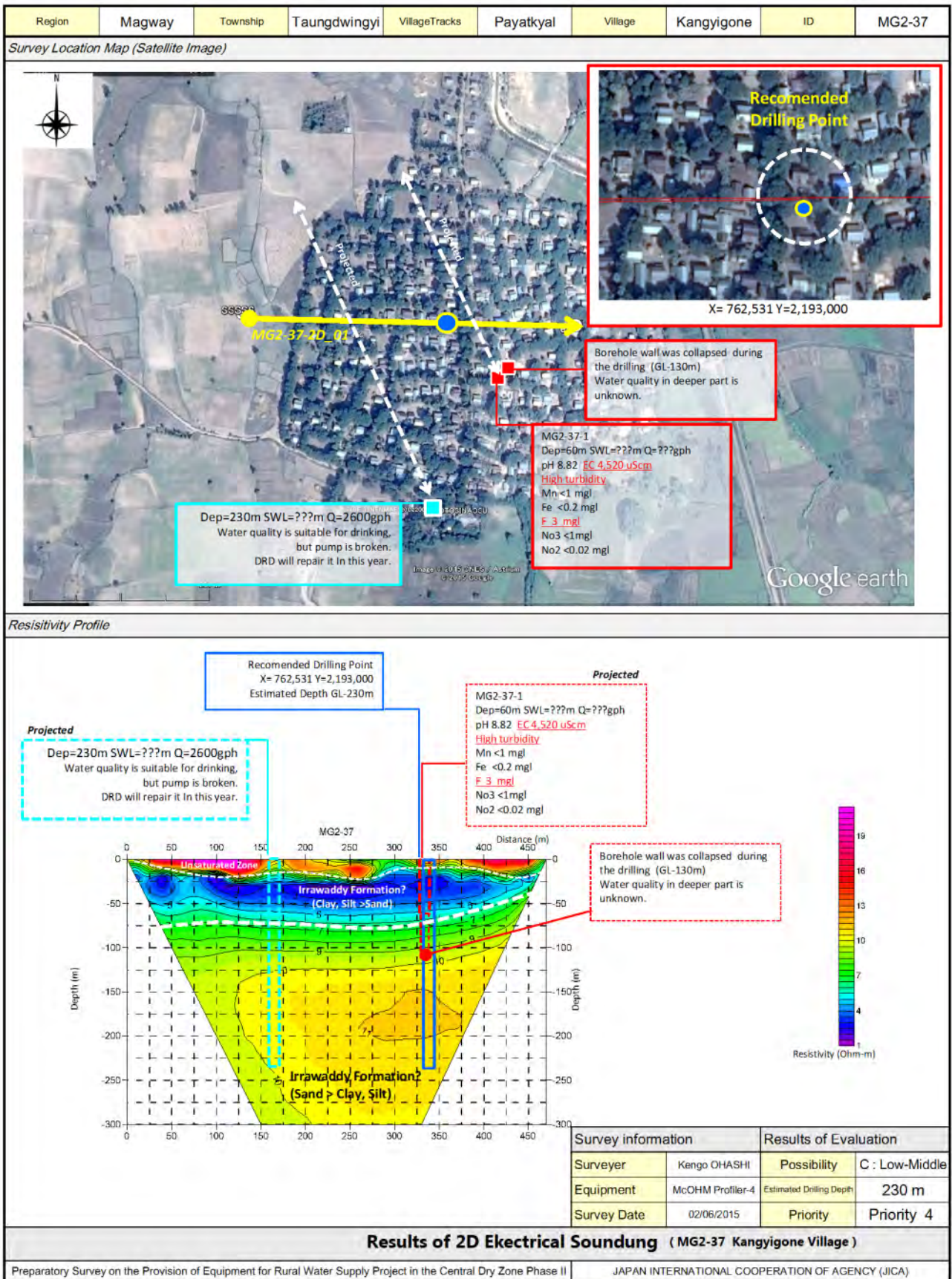
MG2-30 Sellel Village





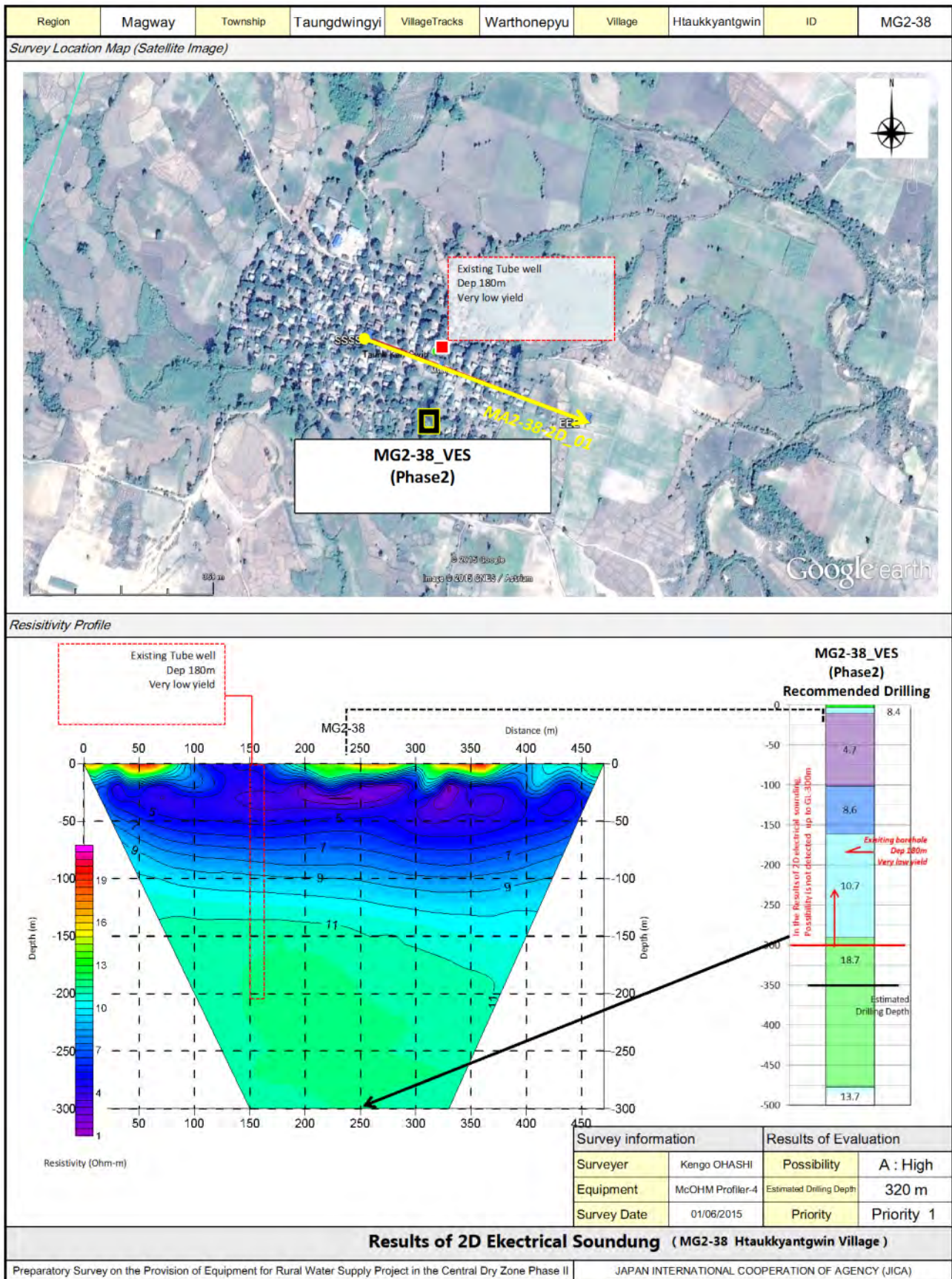
MG2-33 Wayonegone Village





MG2-37 Kangyigone Village





MG2-38 Htaukkyantgwin Village

Appendix 5.2.3 Evaluation of Groundwater Development Potential in the Target Villages

Result of Evaluation (Sagaing Region)

Region	No.	Township	Village Tracks	Villages	ID	Survey Method	Surveyor	Results of Geophysical Survey					Estimated Drilling Depth (m)	Estimated SWL (m)	Recommended Screen range	Evaluation for possibility	Priority
								Estimated Results of Target Aquifer									
								Distribution Depth (m)	Resistivity Value (Ω-m)	Thickness (m)	Remarks						
Sagaing	1	Budalin	Htanaungkone	Yonedaw	SA2-01	VES	DRD	>115	12.7	45	Drilling depth is decided by information of existing tube well.	160	40	18m	C	Priority 5	
	2		Ngapayin	Nyaungbinthar	SA2-02	VES	DRD	70 - 176	20.2	90	Drilling depth is decided by existing tube well which is located near the site.	160	40	12m	A	Priority 3	
	3		Maunghtaung	Maunghtaung	SA2-03	VES	DRD	>120	42.9	30	Potential of upper aquifer(40.5-120.5m) is low, and water quality has little problem. (Salty)	150	40	12m	B	Priority 4	
	4		Ywarhit	Kanlawthar	SA2-04	VES	DRD	>39	12.9 - 48.5	85	Drilling depth is decided by information of existing tube well.	125	39	18m	C	Priority 5	
	5		Konethar	Mhonehtoo	SA2-05	VES	DRD	60 - 108	24.1	40	There is the possibility that the water quality worsens at 100m or lower.	100	30	12m	A	Priority 3	
	6		Wattuu-I	Wattuu-I	SA2-06	VES	DRD	36 - 101	11.7	64	It is expected that capacity of target aquifers is low.	100	36	18m	C	Priority 5	
	7	Chaungoo	Thanbinkan	Thanbinkan	SA2-07	VES	DRD	49 - 200	37.2 - 17	101	Drilling depth is decided by information of existing tube well.	150	70	12m	A	Priority 3	
	8		Natyaygan	Natyaygan	SA2-08	VES	DRD	>170	16.8	30	Main selection basis of drilling depth is resistivity value.	200	61	18m	B	Priority 3	
	9	Ayadaw	Ngartowma	Sithar	SA2-09	VES	DRD	44 - 137	18.9	56	Drilling depth is decided by information of existing tube well.	100	44	12m	A	Priority 3	
	10		Leinhla	Oakkan	SA2-10	VES	DRD	54 - 277	11.9	176	Drilling depth is decided by information of existing tube well.	230	3	18m	C	Priority 4	
	11		Warryaung	Warryaung	SA2-11	VES	DRD	>165	18.2	85	Drilling depth is decided by information of existing tube well.	250	55	12m	A	Priority 2	
	12		Yechinn	Wartannkalay	SA2-12	VES	DRD	43 - 102	11.4	62	Drilling depth is decided by information of existing tube well.	105	43	18m	C	Priority 5	
	13		Nyaungchayhtauk	Yathar	SA2-13	VES	DRD	-	<10	-	-	-	-	-	D	-	
	14		Warryaung	Zeepinlei	SA2-14	VES	DRD	75 - 129	25.2	55	It is expected that capacity of target aquifers is low.	130	50	18m	C	Priority 5	
	15	Salingyi	Yonebinyoe	Yonebinyoe	SA2-15	VES	DRD	-	<10	-	-	-	-	-	D	-	
	16		Minntaw	SA2-16	VES	DRD	74 - 172	40.5	96	It is assumed that water quality is not suitable for drinking at the shallow part of target aquifer.	170	40	12m	B	Priority 4		
	17		Moe Kyo Pyin	Kine	SA2-17	VES/2D	DRD/ESS	-	<10	-	-	-	-	-	D	-	
	18	Myinmu	Kalarpyan	Kalarpyan	SA2-18	VES	DRD	>161	21.6	39	It is assumed that water quality is not suitable for drinking at the shallow part of target aquifer.	200	36	12m	A	Priority 2	
	19		Nyaungbinkan	Hlayookan	SA2-19	VES	DRD	121 - 197	14.3	74	From existing borehole. It is expected that capacity of target aquifers is low.	195	121	18m	C	Priority 4	
	21		Latpenkyin	Watkya	SA2-21	VES	DRD	>168	11.4	32	Main selection basis of drilling depth is resistivity value.	200	36	18m	C	Priority 4	
	22			Thahtaykone(Ywarma)	SA2-22	VES	DRD	>144	12.5	36	Main selection basis of drilling depth is resistivity value.	180	55	18m	C	Priority 5	
	23		Inma	Magyidaw	SA2-23	VES	DRD	-	<10	-	-	-	-	-	D	-	
	24	Kanbalu	Thindaw	Thindaw	SA2-24	VES	DRD	52 - 90	20.9	28	Main selection basis of drilling depth is resistivity value.	80	50	12m	A	Priority 3	
	25			Lwingyi	SA2-25	VES	DRD	>184	41	36	From existing borehole. It is expected that capacity of upper aquifer(99-184m) is low.	220	31	12m	B	Priority 3	
	26		Koetaungboh	Koetaungboh(Kyunkone)	SA2-26	VES	DRD	>144	37.9	41	From existing borehole. It is expected that capacity of target aquifers is low.	185	60	18m	C	Priority 4	
	27		Nyaungkanthar	Inngotele	SA2-27	VES	DRD	<157	24 - 49	126	From existing borehole. It is expected that capacity of target aquifers is low.	150	50	18m	C	Priority 5	
	28		Myayhtoo	Myayhtoo	SA2-28	VES	DRD	-	<10	-	-	-	-	-	D	-	
	29		Khaowntar	Khaowntar	SA2-29	VES	DRD	>182	13	33	Main selection basis of drilling depth is resistivity value.	215	30	18m	C	Priority 4	
	30		Nyuangkanthar	Nyuangkanthar	SA2-30	VES	DRD	138 - 189	12.1	37	Main selection basis of drilling depth is resistivity value.	175	50	18m	C	Priority 5	
	31		Myaymon	Myaymon	SA2-31	VES	DRD	>125	24.1	30	From information of existing tube well. It is assumed that upper aquifer (63-125m) has salinity. So, target aquifer is set to lower layer (>125m)	155	80	12m	A	Priority 3	
	32		Pazigy	Layytwinzin	SA2-32	VES	DRD	>181	22	29	From information of existing tube well. It is assumed that potential of upper aquifer (117-181m) is low. So, target aquifer is set to lower layer (>181m)	210	120	18m	A	Priority 2	
	33	Paygone(S)	Chaungchar	SA2-33	VES	DRD	>174	16.3	31	Main selection basis of drilling depth is resistivity value.	205	60	18m	B	Priority 3		
	34	Dabayin	Intimelay	Minyogone	SA2-34	VES	DRD	42 - 159	12	68	Main selection basis of drilling depth is resistivity value.	110	3	18m	C	Priority 5	
	35		Mintelgone	Shandaw	SA2-35	VES	DRD	81 - 286	14.3	169	Drilling depth is decided by information of existing tube well.	250	0	18m	C	Priority 4	
	36		Satpyaryin	Kyuntaw (S)	SA2-36	VES	DRD	68-183	12.4	32	Drilling depth is decided by information of existing tube well.	100	68	18m	C	Priority 5	
	37	Wetlet	Sharkwal	PalaeThwe (Ywarhit)	SA2-37	VES	DRD	102-163	38.5	28	Main selection basis of drilling depth is resistivity value.	130	55	12m	A	Priority 3	
	38		Poukkan	Poukkan	SA2-38	VES	DRD	-	<10	-	-	-	-	-	D	-	
	39		Yonepingone	Shwenyaungtaw	SA2-39	VES	DRD	-	<10	-	-	-	-	-	D	-	
	40		Khawlaw	Sabeidaw	SA2-40	VES	DRD	-	<10	-	-	-	-	-	D	-	



Result of Evaluation (Mandalay Region)

Region	No.	Township	Village Tracks	Villages	ID	Survey Method	Surveyor	Results of Geophysical Survey							Estimated Drilling Depth (m)	Estimated SWL (m)	Recommended Screen range	Evaluation for possibility	Priority
								Estimated Results of Target Aquifer				Remarks							
								Distribution Depth (m)	Resistivity Value ( $\Omega\cdot m$ )	Thickness (m)									
Mandalay	41	Mahlaing	Yayhtwet	Htantawgyi	MA2-01	2D	ESS	100 - 150	>11	50	Main selection basis of drilling depth are resistivity value and geological cross section.	150	60	18m	C	Priority 5			
	42		Kyatse	Ason	MA2-02	VES	GH	125 - 265	15	25	Main selection basis of drilling depth is resistivity value.	150	60	18m	B	Priority 4			
	43		Yaychobutar	Khinthar(S)	MA2-03	VES	GH	>235	10.4	35	Main selection basis of drilling depth is resistivity value.	270	60	18m	C	Priority 4			
	44	Myingyan	Chaysay	Chaysay	MA2-04	VES	DRD	>132	18.7	28	Main selection basis of drilling depth is resistivity value.	160	50	12m	A	Priority 3			
	45		Pinlai	Talgyi	MA2-05	VES	DRD	>136	14	34	Main selection basis of drilling depth is resistivity value.	170	50	18m	C	Priority 5			
	46		Kuywar	Kuywar	MA2-06	VES/2D	DRD/ESS	-	<10	-	-	-	-	-	D	-			
	48		Phatpin-I	Nyaungwum	MA2-08	VES	GH	-	<10	-	-	-	-	-	D	-			
	51	Ngazon	Kaungzin	Kaungzin	MA2-11	2D	ESS	>200	>10	70	Main selection basis of drilling depth is resistivity value.	250	100	18m	C	Priority 4			
	54	Natogyi	Myinni	Kyaungkangyibin	MA2-14	2D	ESS	167-200	10 -11	33	Main selection basis of drilling depth is resistivity value.	200	167	18m	C	Priority 4			
	55		Nyaunggone	Nyaunggone	MA2-15	2D	ESS	100 - 150	13-14	50	Main selection basis of drilling depth is resistivity value.	150	61	18m	C	Priority 5			
	56	Taungtha	Obo	Chaungnar	MA2-16	2D	ESS	-	<10	-	-	-	-	-	D	-			
	57		Zagyan	Chaungson(La)	MA2-17	VES	GH	112-189	18.1	28	Drilling depth is decided by information of existing tube well.	140	98	12m	A	Priority 3			
	58		Kyaukkar	Kyaukkartaungkone	MA2-18	2D	ESS	-	<10	-	-	-	-	-	D	-			
	59		Kanmyel	Tharzi	MA2-19	VES	GH	154-290	14.3	137	From information of existing tube well. It is assumed that potential of target aquifer is low.	290	154	18m	C	Priority 4			
	60			Kanaye	MA2-20	VES	GH	105-268	17.8	160	From information of existing tube well. It is assumed that potential of target aquifer is low.	265	105	18m	C	Priority 4			
	61		Tharyarmaing	Tharyarmaing	MA2-21	2D	ESS	150 - 250	16-17	50	Drilling depth is decided by information of existing tube well.	200	150	18m	B	Priority 3			
	62	Yamethin	Myinnar	Oakpo	MA2-22	VES	DRD	126-263	11.1	134	From information of existing tube well. It is assumed that potential of target aquifer is low.	260	30	18m	C	Priority 4			
	63		Nabukyin	Kangyi	MA2-23	VES	DRD	>314	13.7	36	Main selection basis of drilling depth is resistivity value.	350	200	18m	C	Priority 3			
	64	Pyawbwe	Seitcho	Htanekan	MA2-24	VES	DRD	>236	11.7	34	Main selection basis of drilling depth is resistivity value.	270	30	18m	C	Priority 4			
	65		Waryonesu	MA2-25	VES	DRD	>278	22.4	27	Main selection basis of drilling depth is resistivity value.	305	11	12m	A	Priority 1				
	66	Nyaungoo	Sinthamway	Talkone	MA2-26	VES	DRD	>245	21.9	30	Main selection basis of drilling depth is resistivity value.	275	150	12m	A	Priority 2			
	67		Tawbyar	Tawbyar	MA2-27	VES	DRD	176-265	40.9	89	Drilling depth is decided by information of existing tube well.	265	176	12m	B	Priority 3			
	68		Setsetyo	Setsetyo	MA2-28	VES	DRD	>363	31.2	27	Main selection basis of drilling depth is resistivity value.	390	269	12m	A	Priority 1			
	69		Pyon	Kanzauk	MA2-29	VES	DRD	>65	17.9-49.0	135?	Drilling depth is decided by information of existing tube well.	200	65	12m	A	Priority 2			
	70		Kantain	Talbindel	MA2-30	VES	DRD	211-300	26.9	90	Drilling depth is decided by information of existing tube well.	300	210	12m	A	Priority 1			
71	Tawpyar		Mongywettaw	MA2-31	VES	DRD	>210	34.1	60	Drilling depth is decided by information of existing tube well.	270	210	12m	A	Priority 2				
72	Tuywintaung		Phoenekan	MA2-32	2D	ESS	<125	14 -30	90	Drilling depth is decided by information of existing tube well.	125	35	18m	C	Priority 5				
73	Nyaungbinthar		Nyaungbinthar	MA2-33	2D	ESS	150 -200 (<200)	19-20	50	Main selection basis of drilling depth is resistivity value.	200	100	12m	A	Priority 2				
74	Kudaw		Saingkan(Tetide)	MA2-34	VES	DRD	>263	19.9	107	Drilling depth is decided by information of existing tube well.	370	263	12m	A	Priority 1				
75	Byugyi		Byugyi	MA2-35	VES	DRD	>231	23.6	79	Drilling depth is decided by information of existing tube well.	310	230	12m	A	Priority 1				
76	Kyaukpadaung	Tangkan	Aleywar-2	MA2-36	2D	ESS	<230	20-30	80	Drilling depth is decided by information of existing tube well.	230	150	12m	A	Priority 2				
78		Lelgyi(N)	Lelgyi(Ma)	MA2-38	2D	ESS	>300	>13	50	Main selection basis of drilling depth is resistivity value.	350	51.5	18m	C	Priority 3				
79		Kannbyu	Thayattaw	MA2-39	VES	DRD	>223	38.7	127	From information of existing tube well. It is assumed that potential of target aquifer is low.	350	223	18m	C	Priority 3				
80		Nakyatkhwai	Nakyatkhwai	MA2-40	VES	DRD	233-300	33.4	62	Drilling depth is decided by information of existing tube well.	295	67	12m	A	Priority 2				

Result of Evaluation (Magway Region)

Region	No.	Township	Village Tracks	Villages	ID	Survey Method	Surveyor	Results of Geophysical Survey								Estimated Drilling Depth (m)	Estimated SWL (m)	Recommended Screen range	Evaluation for possibility	Priority
								Estimated Results of Target Aquifer				Remarks								
								Distribution Depth (m)	Resistivity Value (Q-m)	Thickness (m)										
Magway	81	Magway	Natkan	Natkan	MG2-01	VES	ESS	121 - 251	20.4	59	Drilling depth is decided by information of existing tube well.	180	75	12m	A	Priority 3				
	82		Sharzaungkan	Thanbo(Ywarthit)	MG2-02	VES	ESS	>73	14.9	47	Drilling depth is decided by information of existing tube well.	120	73	18m	C	Priority 5				
	83		Kyarkan	Nyaungbinthar	MG2-03	VES	ESS	>148	17.8	52	Drilling depth is decided by information of existing tube well.	200	150	12m	A	Priority 2				
	84		Nyaungbinthar	Konegyi	MG2-04	VES	ESS	>213	36.4	27	Main selection basis of drilling depth is resistivity value.	240	134	12m	A	Priority 2				
	85		Paypinsan	Sainggya	MG2-05	VES	ESS	>162	15.8	38	Drilling depth is decided by information of existing tube well.	200	162	18m	B	Priority 3				
	86		Thapyaysan	Thapyaysan(N)	MG2-06	VES	ESS	>139	29.1	51	Drilling depth is decided by information of existing tube well.	190	108	12m	A	Priority 2				
	87		Supyitsan	Shwekyaw	MG2-07	VES	ESS	89 - 217	18.2	111	Drilling depth is decided by information of existing tube well.	200	89	12m	A	Priority 2				
	88		Nyaungkan	Leikkan	MG2-08	VES	ESS	95-206	39.6	25	Main selection basis of drilling depth is resistivity value.	120	100	12m	A	Priority 3				
	89			Ywarthitgyi	MG2-09	VES	ESS	>107	19.2	73	Drilling depth is decided by information of existing tube well.	180	105	12m	A	Priority 3				
	90	Chauk	Thanbo	Kanyaygyi	MG2-10	VES	GH	>212	56.2	118	It is assumed that potential of target aquifer is low.	330	212	18m	C	Priority 3				
	91		Myaysoor	Myaysoon(Ywarthit)	MG2-11	VES	GH	>150	31.2	110	Drilling depth is decided by information of existing tube well.	260	150	12m	A	Priority 2				
	92		Zeebwar	Zeebwar	MG2-12	2D	ESS	<135	15-21	55	Drilling depth is decided by information of existing tube well.	135	80	18m	B	Priority 4				
	93		Chaungtat	Yenpyay	MG2-13	VES	GH	>115	22.2	55	Drilling depth is decided by information of existing tube well.	170	115	12m	A	Priority 3				
	94		Pakhanng	Kyatesu(N)	MG2-14	VES	GH	>117	24.5	28	Main selection basis of drilling depth is resistivity value.	145	23	12m	A	Priority 3				
	95		Salintaung	Winkabar	MG2-15	VES	GH	>71	22.9	39	Drilling depth is decided by information of existing tube well.	110	30	12m	A	Priority 3				
	96		Magykone	Kyatkan	MG2-16	VES	GH	>80	23.8	90	Drilling depth is decided by information of existing tube well.	170	100	12m	A	Priority 3				
	97		Gwaypin	Sudat	MG2-17	VES	GH	>270	39.2	100	Drilling depth is decided by information of existing tube well.	370	270	12m	A	Priority 1				
	98		Nyaungzin	Myaynilain	MG2-18	VES	GH	160 - 268	44.9	89	Drilling depth is decided by information of existing tube well.	250	160	12m	B	Priority 3				
	99	Yenangyaung	Indaw	Lagyinyo	MG2-19	2D	ESS	134-280	23-25	146	Drilling depth is decided by information of existing tube well.	280	134	12m	A	Priority 2				
	100	Myothit	Laytinesin	Laytinesin(S)	MG2-20	VES	GH	>109	23.1	91	Drilling depth is decided by information of existing tube well.	200	109	12m	A	Priority 2				
	101			Tharmyar	MG2-21	VES	GH	170-362	33.1	30	Drilling depth is decided by information of existing tube well.	200	120	12m	A	Priority 2				
	102		Wargyiini	Ngwelay	MG2-23	VES	GH	52-112	46.9	63	Drilling depth is decided by information of existing tube well.	115	52	12m	B	Priority 4				
	103			Htauksharkan	Indaw(N)	MG2-24	VES	GH	>110	17.8	30	From information of existing tube well, it is assumed that potential of target aquifer is low.	145	55	18m	C	Priority 5			
	104		Manawtkone	Manawtkone	MG2-26	VES	GH	98-305	28.5	32	Drilling depth is decided by information of existing tube well.	130	24	12m	A	Priority 3				
	106																			
	107	Natmauk	I-Sauk	Kangyigone	MG2-27	VES	ESS	141-220	26.2	79	Drilling depth is decided by information of existing tube well.	220	141	12m	A	Priority 2				
	108		Htonepoutchine	Htonepoutchine	MG2-28	2D	ESS	60-110	15-17	50	Main selection basis of drilling depth is resistivity value.	110	70	18m	B	Priority 4				
	110		Sellei	Sellei	MG2-30	2D	ESS	-	<10	-	-	-	-	-	D	-				
	112		Tegy	Ywartharlay	MG2-32	VES	ESS	-	<10	-	-	-	-	-	D	-				
	113		Wayonegone	Wayonegone	MG2-33	2D	ESS	<120	12-20	40?	Main selection basis of drilling depth is resistivity value.	120	70	18m	C	Priority 5				
	114		Htonepoutchine	Nyaunggone	MG2-34	VES	ESS	57-147	25.1	53?	Drilling depth is decided by information of existing tube well.	110	70	12m	A	Priority 3				
	115	I-Zauk	Kyugyaung	MG2-35	VES	ESS	>175	15.8	45	Drilling depth is decided by information of existing tube well.	220	140	18m	B	Priority 3					
	116	Taungdwingyi	Pantwinlay	Kokkohla	MG2-36	VES	ESS	-	<10	-	-	-	-	-	D	-				
	117		Payatkyal	Kangyigone	MG2-37	2D	ESS	150 - 230	11	80	Drilling depth is decided by information of existing tube well.	230	70	18m	C	Priority 4				
	118		Warthonepyu	Htaukkyantgwin	MG2-38	VES/2D	ESS/GH	290-477	18.7	30	Main selection basis of drilling depth is resistivity value.	320	100	12m	A	Priority 1				
	119		Hlebwegyi	Hlebwegyi	MG2-39	VES	ESS	>225	22	30	Main selection basis of drilling depth is resistivity value.	255	100	12m	A	Priority 2				
	120			Yayhtwetgyi	MG2-40	VES	ESS	82-226	37.7	98	Drilling depth is decided by information of existing tube well.	180	40	12m	A	Priority 3				