

EPSP Meeting – June 21-22, 2004
Annenberg Presidential Conference Center @ Texas A & M University
College Station, TX

Called to order: Meeting was called to order by the chair. A brief safety moment was presented on the location of the room and conference center exits. Jack Baldauf (host) presented information on meeting logistics. General rules and guidelines for the meeting were presented.

Self introductions: Self introductions made by all attendees.

EPSP Members Present: Bob Bruce, Akito Furutani, Hans Juvkam-Wold, Susumu Kato, Barry Katz (Chair), Jean Mascle, Bramley Murton, Craig Shipp, Dieter Strack, Manabu Tanahashi, Toshiki Watanabe, and Joel Watkins

EPSP Members Absent: Jiro Chinju and Nobuo Morita

Guests: Jack Baldauf (USIO-TAMU), Colin Brett (ESO), Bob Burger (USI-JOI), John Castagna (Nominated EPSP Member), George Claypool (TAMU-SP), Mike Coffin (SPC), Neil DeSilva (TAMU-SP), Earl Doyle (USSAC), Andre Droxler (SSP), Dave Goldberg (USIO-LDEO), Martin Hovland (TAMU-SP), Tom Janecek (IODP-MI), Yoshihisa Kawamura (CDEX), Shomei Kobayashi (CDEX), Shinichi Kuramoto (CDEX), Daniel Quoidbach (ODP/IODP Databank), Takao Saito (CDEX-HSE), Jerome Schubert (Nominated EPSP member), Uko Suzuki (CDEX), Manik Talwani (IODP-MI), Fred Taylor (Presenter – Reef Drilling), Julia Smith Wellner (SHALDRIL), Masaoki Yamao (GODI), Tamio Yohroh (CDEX)

Agenda review: Preliminary agenda was reviewed and modified with two program additions: 1- A review of the CDEX database; and, 2- drilling in the vicinity of chemosynthetic communities.

Minutes approval: Minutes from the December 2003 meeting were approved without any additional revision.

Review of SPC activities that may impact EPSP: Mike Coffin reviewed SPC activities from the last two meetings that may impact the activities of the panel. It was noted that there was the potential that funding could be available for additional nonriser legs filling out the remainder of fiscal year 2005 and 2006. This possible addition would significantly impact the activities of the panel increasing the number of reviews that will need to be conducted over the next 12 months. SPC completed their rankings in June 2004 and classified these and previously ranked proposals into three groups of priority for scheduling. OPCOM has been asked to build a drilling program incorporating the scientific ranking of the proposals. The next OPCOM meeting is scheduled for September 30 – October 1, 2004 in Washington, D.C. OPCOM will be building a program assuming that this additional funding will be available. EPSP will need to act in the same manner. Additional budgetary advice will not be available until January 2005.

The acceptance of the panel's name change by SPPOC was noted. A high-level overview of the reef drilling impact statement was made.

Comments on ranked proposals: Barry Katz reviewed the proposals forwarded to and residing with OPCOM. It was noted that several of the proposals could provide significant challenges to EPSP. These are summarized below.

Proposal Identification	EPSP Challenges/Issues
Group I	
545 - Juan de Fuca (part 2)	None
589 - Gulf of Mexico	Overpressure/shallow gas
621- Monterey Bay Observatory	Marine sanctuary
564 - New Jersey Margin	Shallow gas
519 - Great Barrier Reef	Reef drilling, marine park
522 - Superfast Spreading Crust	None
603A - NanTroSEIZE phase 1	Penetration up to 1750m
603B - NanTroSEIZE phase 2	Penetration up to 3500m
477 - Okhotsk/Bering Sea	Hydrates/penetration up to 700m
482 - Wilkes Land Margin	Penetration up to 1000m
553 – Cascadia Margin Hydrates	Hydrates
600 - Canterbury Basin	Penetration up to 1825m/hydrocarbons?
Group II	
595 - Murray Ridge	Penetration 2910m
547 – Oceanic Subsurface Biosphere	None
577 - Storegga Slide	Gas hydrates
Group III	
581 – Late Pleistocene Corallgal Banks	
584 – TAG II Hydrothermal	
573 - Porcupine Basin Carbonate Mounds	Hydrocarbon seeps/chemosynthetic communities
555 - Cretan Margin	Deep penetrations/mud volcanoes

Review of OPCOM activities: Tom Janecek presented an overview of OPCOM. Within IODP OPCOM has shifted from part of the scientific advisory structure to the management structure. There will be an attempt made to schedule as much as 18 months of drilling during each cycle. Membership of OPCOM will vary through time, with only a limited number of “fixed” membership positions. The planning and scheduling process will take nearly two years. OPCOM will meet after SPC has ranked and prioritized the drilling proposals. They will formulate a series of alternate drilling schedules. They will then work with SPC to insure that the science plan is being met by the proposed drilling plans. Once consensus is reached a program plan will be developed for submission to the lead agencies.

Discussion on the presentation followed. It was noted that under the new scheme the lack of EPSP liaison with OPCOM could complicate the panel's operation. Historically this liaison provided the panel with a “heads-up” on how the panel's agenda needed to develop. In its revised form there will need to be improved communication between EPSP and OPCOM. It was also noted that there appears to be a need for better

feedback from EPSP into both the scientific planning process and operations. It was observed that EPSP could limit drilling under some circumstances so that the approved science objectives would not be met yet there is no formal mechanism in the current system for a follow-up review.

Review of draft IODP HSE guideline statement: The revised IODP HSE guideline statement was presented to the panel for review. It was recommended that with the addition of the following statement to list of program actions that the draft be approved by SPC, OPCOM, and the operators.

“Drilling programs will undergo a predrill risk assessment prior to implementation to minimize environmental impact and maximize safety.”

Barry Katz will forward the modified guideline to Mike Coffin (SPC), Tom Janecek (OPCOM), Jack Baldauf (JA), Colin Brett (ESO) and Takao Saito (CDEX)

Review status of the Arctic drilling program: Colin Brett provided an update to the panel. It appears that most probably only a single site will be drilled. Other locations will most probably represent alternates. A three ship strategy is planned - *Sovetskiy Soyuz*, *Oden*, and the *Vidar Viking*, which will act as the drillship. Plans currently are for a real-time ice management plan using GPS. Drilling will only be carried out within EPSP approved locations. Borehole stability will be monitored by the driller who will sanction wire line core barrel retrieval if safe to do so. Retrieved core will be monitored for gas. The presence of gas will normally terminate the borehole. If hydrocarbons are encountered sub-samples of the core will be collected using approved oilfield exploration techniques for subsequent detailed analysis onshore.

Discussion of shipboard hydrocarbon monitoring program: Colin Brett introduced the proposed monitoring program for mission specific platforms. ESO presented a plan to use gas detectors rather than conventional gas chromatography for monitoring. It was noted that the equipment proposed was actually designed for safety monitoring of enclosed spaces. In the case of hydrocarbons, it is used to detect whether gas concentrations have approached an explosive threshold. It was stated that the ESO plan would terminate a hole when gas is detected because of the limited space for “kill mud”. The choice of equipment was largely made because of space limitations for equipment, supplies, and analyst. It was generally felt that the proposed program could prematurely terminate drilling operations because of the ubiquitous occurrences of trace quantities of gas and that gas chromatography should still be used as the primary means of hydrocarbon monitoring. The currently in-place gas monitoring program is largely dependent on the tracking of gas wetness, with drilling being terminated when values exceed that predicted based on the geothermal gradient. It was noted by George Claypool that small portable, largely self-contained, gas chromatographs are available and that an analyst could be easily trained. The interpretation of any anomalies could be handled onshore. It was also proposed that more information be

obtained on the potential utility of the gas detectors through a comparative study with conventional gas chromatographic data.

It was recommended that Colin Brett contact George Claypool about obtaining a “loaner” GC. If one is unavailable from Claypool they pursue other means of securing a GC. Gas chromatography remains the only currently acceptable means of hydrocarbon monitoring.

Jack Baldauf will work with ESO and the scientific staff of the *Joides Resolution* to develop an experimental program to determine how and whether the gas detectors may be used for hydrocarbon monitoring. It is hoped that they will report back to EPSP at their December meeting following the initiation of IODP drilling.

Review of activities of the USIO: Jack Baldauf presented the status and plans of the nonriser portion of the program. Focus has been on the remobilization of the *Joides Resolution*. The first cruise (Juan de Fuca - Expedition 301) is scheduled to depart on June 27th. A number of modifications to program presented at the December EPSP meeting were made for operational and budgetary reasons. These are summarized below.

Juan de Fuca - Expedition 301

Proposed: 1 deep hole at site SR-1A with CORK installation and multiple complex experiments, and replace CORKs at ODP Sites 1026 and 1027

Current plan: 3 holes at SR-1A and replace CORKs at Sites 1026 and 1027:

- Hole A: APC cored to basement (275 mbsf)
- Hole B: Cased re-entry hole w/CORK through the rubble zone (est. 335 mbsf)
- Hole C: Cased reentry hole w/CORK to 700 mbsf

Revised plan decreases the overall complexity of the program

Costa Rica –APL – Expedition 302

Replace samplers while in transit. (Not in the original plan.)

North Atlantic – Expeditions 303 and 306

Proposed: Quadruple APC 5 sites to 300 mbsf on each expedition, plus instrumenting an existing hole (642E) at the end of Expedition/

Current plan: Triple APC 5 sites on each expedition and drill a new instrumented hole near Site 642. IRM sites were removed from program because of the need for an ice support vessel.

Revised plan will fit within allotted time, but costs will be increased by about \$80,000 due to additional hardware requirements plus the time required for drilling a new hole at ODP Site 642.

EPSP will need to complete the site review for these expeditions at this meeting.

Core Complex – Expeditions 304 and 305

Proposed: drill 2 cased re-entry holes in oceanic crust w/bare rock spud in; one hole to 400-500 mbsf (detachment fault and hanging wall) and one hole to at least 700 mbsf (footwall/high seismic velocity zone)

Current plan: Both holes will be started with the hammer drill system, then RCB cored to casing depth on Expedition 3. Remaining time, including Expedition 4 devoted to coring to maximum possible depth at the deep site.

Revised plan will fit within available time, but costs have increased for use of both hammer and re-entry system. Revised program nearly doubled the expedition costs.

Other issues that may be of interest to the panels were

- Postponement of the Gulf of Mexico hazard survey,
- Development of a shipboard security program
- Cross-training programs across the operators
- Development of a high latitude contingency program
- Marine Mammal Site Survey protocol pending

Overview of the CDEX database: Shinichi Kuramoto presented an overview of the CDEX database system. The system will allow electronic access to site survey data through the Internet using XML technology. Access to the database will not require a broadband connection. The system uses a GIS interface and will integrate all of the available data. The system will permit the use of Schlumberger's *GeoFrame* software. Comments and suggestions should be forwarded to CDEX.

Review of CDEX HSE management system: Takao Saito presented an overview of the CDEX HSE system. Noting that there are three internal groups responsible for different portions of the HSE process – Site Survey, Operations, and HSE. CDEX's well management system includes five general stages, each with a series of associated activities. An appraisal stage which includes such activities as the development of the proposal, the gathering of available data, and an initial engineering site survey. This initial appraisal stage would include a planning kick-off meeting. The second stage includes the well design, safety assessment, and the preparation of the environmental impact statement. The third stage is the execution of the program (i.e., drilling of the well). The fourth stage is the analysis of the activities, including a post-well review and meeting. The final step is the incorporation of the learnings into the next operation.

A question was raised as to whether the term "well" should be introduced into the program because of its commercial implications.

Discussion on riser drilling EPSP review process: Following the CDEX presentation a general discussion on the riser drilling process was conducted. It was observed that because of the increased technical difficulties of most of the proposed riser drilling operations a more robust geologic/geophysical interpretation will be required. Additional information concerning the specifics of the drilling program will also need to be introduced. There was some concern whether all the necessary skills for a complete

review were present on EPSP. It was felt that there could be a need to occasionally bring in an external consultant. CDEX noted that there exists internal expertise in riser drilling expressed concerns about the introduction of a third party. It was clarified that this external consultant was to assist EPSP with the review and not to directly support CDEX's technical and engineering staff.

It was observed that the proposed system was a major departure from the current safety review process with much more direct operator involvement. As a result of the shift away from the proponent to the operator, it appears that EPSP's role would be shifting to one of greater oversight responsibilities (i.e., examining the work product of the operator). Several of the panel members expressed discomfort with this role and feel the need for continuing dialogue on the process.

It is recommended that the role of EPSP in the review of riser expeditions be discussed in more detail at the December EPSP meeting.

Preview of Chikyu Training Cruise: Tamio Yohroh provided an overview of the planned training cruise. The Shimokita-Toho (East) region was selected for the training cruise. Engineering geophysical surveys were conducted and identified regions of possible free gas and gas hydrates (BSR's) within the training area. Potential drilling locations were selected outside of the areas with these potential hazards. The training program will have three components: 1- BOP setting practice around IPOD Site 439; 2- the drilling of a riser 2000m hole in 2000m of water; and 3- riser drilling of a 3000m hole in 1000m of water. Plans are for the offshore training program to begin in September 2005.

After the presentation a general discussion was held and a partial list of data needs for a riser program review was developed. Meeting attendees listed the following data needs for an effective review:

- Proposed drilling location
- Seismic cross-lines (common scale)
- Annotated seismic, with drilling locations and apparent hazards
- Current profile throughout the water column
- Heat flow estimates
- Downhole pressure estimates
- Drilling plan – including casing, mud, and coring programs (contingency plan should also be include)
- Hydrocarbon monitoring program and contingency plan for hydrocarbon shows
- Structure map on key horizons (common projection and scale)
- Surface feature maps (same projection and scale as structure maps)
- Single “hazard” summary table

Plans currently are for the initiation of a review of the Chikyu Training Cruise at the December 2004 meeting.

Review of remaining sites from Proposal 572 (North Atlantic Paleoclimate): Dan Quoidbach presented the sites pending from the December 2004 meeting and an additional proposed site. Two sites were relocated by the panel and a third site was approved to a greater depth than originally proposed.

Site	Latitude	Longitude	Depth of Penetration (m)	Status
IRD-3A	41°0.068'N	32°57.438'W	400	Approved with modified depth
LAB-8A	58°28.52520'N	46°27.82314'W	300	Relocated to shot point 13975 on KN166 – Line25a
LAB-8C	58°30.34632'N	46°24.03360'W	400	Relocated to shot point 14375 on IKN166 – Line25a

Dan Quoidbach will provide latitudes and longitudes for the relocated sites.

Discussion on drilling in the vicinity of chemosynthetic communities: Neil DeSilva presented a general discussion on the current status on drilling in the vicinity of chemosynthetic communities. These communities live in perpetual darkness and derive their energy from dissolved gases. The known distribution of these communities is expanding. They may be detected through direct observations or inferred through high-resolution geophysical data, shallow cores, and bathymetric anomalies. There is an association between these communities and hydrocarbon seeps. Legislation is currently in-place in Canada, the United Kingdom, and the United States dealing with drilling near chemosynthetic communities. This legislation would generally prohibit or restrict drilling operations. In the UK drilling is generally precluded, if permitted there are specific requirements associated with the discharge of drill cuttings and anchoring. In Canada an environmental assessment would need to be undertaken, but there is a general recommendation to avoid these locations. In the US drilling would not be permitted within 1500 feet of a community nor within 250 feet of a feature that could support a community.

A general discussion followed on how these restrictions could impact the drilling program. For example, if the program followed the more restricted legislation globally it could be prevented from drilling at some proposed locations including some Cascadia sites and the Porcupine basin carbonate mounds.

Panel members will be prepared to discuss at the December 2004 meeting survey needs and a general program strategy for drilling in high risk areas.

Review of Proposal 553 (Cascadia Gas Hydrates): As a result of illness the lead proponent was unable to attend the meeting and no substitute was available. A revised safety presentation was electronically forwarded to Craig Shipp, who introduced the package. No additional review of the scientific goals and objectives was made at this meeting. The proponent had presented the science plan at the panel's December 2003 meeting. Craig Shipp and Barry Katz lead the panel through the site-by-site review. (CAS-04B was approved at the panel's December meeting.)

Site	Latitude	Longitude	Depth of Penetration (m)	Status
CAS-01B	48°41.884'N	126°51.924'W	400	Approved as proposed
CAS-01C	48°40.682'N	126°50.630'W	600	Approved as proposed
CAS-02B	---	---	---	Not approved at present location
CAS-03B	48°37.058'N	127°2.413'W		Approved as proposed
CAS-05B	48°44.161'N	126°47.537'W	350	Approved as proposed
CAS-05C	---	---	---	Not approved. Panel would require a cross-line for approval
CAS-06A	48°40.050'N	126°51.053'W	300	Approved with a modified depth (50 m less than originally proposed)

All approvals granted by the panel are conditional upon receipt of a fully revised safety package. The proponents will need to provide to EPSP this package before the December meeting for an e-review. This should include a full set of site safety sheets, fully annotated seismic lines, and clarification of the site names (e.g., in the December 2003 safety packet the dual CORK location was identified as CAS-01B holes A&B it is now identified as CAS-01C). The annotation should include well locations to proposed penetration depths, scales and vertical exaggerations. All sites no longer under consideration should be removed from maps and sections to avoid confusion.

The proponents can resubmit for review at the December meeting CAS-02B and CAS-05C. Concerns were expressed about free-gas at CAS-02B and without the proponents present were unable to relocate the site. CAS-05C would need to be located on a cross-line. The proponents will also need to present any plans for LWD during the expedition. It is recommended that the proponent attend this meeting.

Concerns were expressed by the panel whether approval would be granted by the Canadian government for the drilling of the CAS-06A

because of its proximity to a chemosynthetic community. Proponents should consider the selection of alternate sites beyond the required standoff distance in case the operator is unable to secure approval. Note that IODP guidelines for the drilling of chemosynthetic communities are still under development.

Courtesy review of SHALDRIL Program: Julia Smith Wellner presented an overview of the scientific and technical plans of the SHALDRIL Program. The program is a test of drilling capabilities in Antarctic waters using conventional ice-breaking research vessels. Although the study area selection was largely driven by logistics (e.g., availability of site survey data, access to onshore support bases, etc.) the potential for a significant scientific return was also considered. The scientific objectives include an examination of: 1) the expansion of the Antarctic Peninsula ice cap onto the continental shelf; 2) the response of Antarctic flora to climatic cooling and glaciation; 3) the Late Eocene-Oligocene paleobiology of high latitude faunas; 4) Holocene climatic variability and ice sheet fluctuations; and 5) ice-sheet sedimentation and the last glacial maximum. The proposed program will take place in the James Ross basin, located at the northern tip of the Antarctic Peninsula.

Meeting participants discussed the proposed drilling program. The panel sees no safety or potential pollution issues with the drilling of the proposed shallow cores. All seven of the planned cores were limited to 100 meters. It was strongly recommended that alternate drilling sites be considered because of potential ice conditions. The proponents were reminded of restrictions that may be placed on the collection of new seismic data because of issues associated with marine mammals. Meeting participants emphasized the need for clear evacuation plans (both medical emergencies and complete vessel evacuation) and an understanding of the time needed to “cut and run”.

Discussion on coral reef drilling: Fred Taylor presented an overview of some of the environmental drilling issues associated with coral reef drilling. Current information indicates that the effects of reef drilling would be minimal, however studies have been somewhat limited. There may be more of a political risk than real risk associated with reef drilling, with reefs currently being in serious decline. The program needs to engage the biologists. Several potential issues were noted.

- Mechanical damage includes the hole itself and that caused by anchoring. It was felt that the solutions to mechanical damage could be found through better hole positioning (visual inspection), the use of a dynamically positioned ship, and/or the use of anchor bolts emplaced in the sea bed.
- Changes in reef hydrology induced through the borehole may negatively impact reef organisms or undermine reef integrity through the introduction of borers. It was suggested that these effects could be minimized through the plugging of the borehole.
- Introduction of cuttings and drilling mud which may inhibit photosynthesis and stress the reef. Chronic exposure is considered more of a problem than the limited exposure caused by typical scientific drilling. Historically most cuttings and mud disappears into the reef's porosity. Wave action and currents is also thought to

rapidly disperse any cuttings further reducing any impact. If drilling fluids were to be used the operators may wish to consider the use of biodegradable vegetable-based fluids (e.g., a guar gum drilling fluid) and should also consider using a circulating system to capture the drilling fluid.

- Leaks of hydraulic fluids and other substance may be limited in scope (on the order of liters) but could have a negative impact on the reef. The program might consider using freshwater or seawater hydraulic fluid systems or a biodegradable hydraulic fluid.
- Noise and vibrations may impact life associated with the reef. The time at one site should be minimized and there should be separation between sites.

The panel continued the discussion and raised the issue of packing-off and cementing the low permeability horizons. It was generally felt that this is not accomplishable and that the cementing may introduce other environmental issues. The panel also felt that monitoring before and after drilling was critical.

Barry Katz will draft, based on Fred Taylor's presentation and follow-up discussion, a set of guidelines for reef drilling for discussion at the next EPSP meeting.

Discussion on Tahiti 650-APL: A proposal was presented to the SPC for a seismic experiment to be conducted as part of the Tahiti drilling program. This program includes a cross-well tomography program. The proposed program would include the installation and removal of PVC liners in the boreholes and re-entry cones. The panel was asked to review the environmental implications of only those portions of the proposal that were associated with the boreholes (i.e., EPSP did not consider the placement of the ocean bottom cables). Following discussion it was **recommended that the operator consider leaving the PVC liners in the boreholes**. Concerns were expressed that the process of removing the liners could do more damage to the reef than permitting it to remain. As with the drilling operations, it is recommended that the operations should be monitored using an ROV.

Review of working draft of Environmental Impact Statement on Coral Reef Drilling: Barry Katz presented the draft statement. Following a brief general discussion no suggested modifications were proposed. The panel will begin to develop the implementation plan and guidelines to support the overarching statement. This will be a discussion item at the December meeting.

Results of e-reviews: Barry Katz presented the results of the e-reviews for Proposals 512-Full3, 519-Add2, and 543-Full2.

Proposal 512-Full3 (Oceanic Core Complex): The panel by electronic vote unanimously approved the proposed sites as detailed below. The panel recommends the monitoring of H₂S.

Site	Latitude	Longitude	Depth of Penetration	Status
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(m)				
AMFW-01A	30°10.2'N	42°7.4'W	700	Approved as proposed
AMHW-01A	30°11.5'N	42°3.9'W	500	Approved as proposed

Proposal 519-Add2 (South Pacific Sea Level – Tahiti): The panel by electronic vote unanimously approved the proposed sites as detailed below. The panel requests that an ROV be used to survey the proposed drilling locations before and after the drilling operations. In addition, if an anchored vessel is used for drilling the anchor points should be visually examined before and during anchor placement.

Site	Latitude	Longitude	Depth of Penetration (m)	Status
TAH-01A #1	17°32.1298'S	149°36.2299'W	85	Approved as proposed
TAH-01A #2	17°32.0989'S	149°36.0869'W	75	Approved as proposed
TAH-01A #3	17°32.0632'S	149°35.9187'W	60	Approved as proposed
TAH-01A #4	17°32.0339'S	149°35.7727'W	45	Approved as proposed
TAH-01A #5	17°31.9917'S	149°35.5772'W	45	Approved as proposed
TAH-01A #6	17°31.9661'S	149°35.4506'W	55	Approved as proposed
TAH-02A #1	17°29.9625'S	149°24.6986'W	85	Approved as proposed
TAH-02A #2	17°29.8142'S	149°24.5788'W	100	Approved as proposed
TAH-02A #3	17°29.6200'S	149°24.4315'W	75	Approved as proposed
TAH-02A #4	17°29.3631'S	149°24.2418'W	75	Approved as proposed
TAH-02A #5	17°29.2799'S	149°24.1822'W	65	Approved as proposed
TAH-02A #6	17°29.2347'S	149°24.1488'W	55	Approved as proposed
TAH-02A #7	17°29.1047'S	149°24.0589'W	105	Approved as proposed
TAH-03A #1	17°45.9808'S	149°32.8766'W	80	Approved as proposed
TAH-03A #2	17°45.9621'S	149°32.9645'W	90	Approved as proposed
TAH-03A #3	17°45.9553'S	149°33.0407'W	70	Approved as proposed
TAH-03A #4	17°45.9888'S	149°33.0529'W	75	Approved as proposed
TAH-03A #5	17°46.0196'S	149°33.0614'W	55	Approved as proposed
TAH-03A #6	17°46.0471'S	149°33.0712'W	55	Approved as proposed

Proposal 543-Full2 (Cork in 642E): The panel by electronic vote unanimously approved the proposed site as detailed below.

Site	Latitude	Longitude	Depth of Penetration (m)	Status
VP-1	67°12.7'N	2°55.8'W	150	Approved as proposed

Discussion on LWD/MWD operations: An open discussion on LWD/MWD took place. This discussion was based on the presentation made by Dave Goldberg at the December 2003 panel meeting. It was felt that there were certain environments such as mid-ocean ridges and abyssal plains where there should be no restrictions on LWD and

no need for real time monitoring. There were other settings including those associated with hydrates, overpressure conditions, clear shallow gas hazards, and proven petroleum provinces where real-time measurements would be required. It was noted that many proponents would like to use LWD to select coring locations in order to make their time on site more effective. It was suggested that rather than establishing a series of universal restrictions on LWD site-by-site reviews by EPSP are needed. When LWD/MWD is being used for safety/hydrocarbon monitoring it appears that real-time pressure monitoring may be required as well as a camera may need to be placed near the borehole. The “stacking” of the tool may also need to be considered to insure that the key safety monitoring components are close to the bit.

Dave Goldberg will prepare a draft set of operational guidelines for the use of LWD/MWD. The issues to be addressed should include: 1- under what circumstances can logging be conducted prior to coring; 2- where and when is real-time data collection required; 3- what tools need to be used for safety (hydrocarbon) monitoring; and 4- what are the general guidelines for interpretation of the data. These guidelines should be circulated to the panel prior to the December meeting. They will be included in December meeting agenda.

Discussion on drillsite selection and near-surface drilling hazard survey guidelines: Bob Bruce reviewed the proposed guidelines for shallow hazard assessment. It was noted that the shallow safety issues may vary depending on the nature of the drilling platform. But in general, the data density and area of coverage needs to be sufficient to identify the issues of concern and that shallow gas accumulations are considered an issue across platforms. A reporting format is also included in the guidelines that would provide EPSP the necessary information to quickly evaluate risks.

All panel members are asked to review the document and provide any comments no later than November 15th to Bob Bruce and Craig Shipp.

The panel will discuss the final draft at the December meeting and vote on forwarding to the SPC for endorsement.

New watchdog for proposal 589: As a result of a conflict of interest Joel Watkins will replace Bob Bruce as EPSP watchdog.

Barry Katz will advise the lead proponent of the change.

Other new business: No additional business was brought forward.

Planning of next two meetings: Pending final approval by IODP-MI the next meeting of EPSP will be held December 6 and 7, 2004 in Hawaii. The specific venue will be selected after consultation with the JOI travel office. Agenda items will include: reviews

of drilling programs to-date, recommendations on **coral reef** and **chemosynthetic community drilling** and the use of **LWD/MWD**, formal reviews of **Proposal 589 (Gulf of Mexico Overpressure)**, **Proposal 621-Full (Monterey Bay Observatory)**, **Drilling Program of the Chikyu Training Cruise**, and preview of **Proposal 603A-Full2** and **603B-(NanTroSEIZE Phase 1 and 2)**. Results of e-reviews of **Proposal 522-Full3 (Superfast Spreading Crust)**, and **Proposal 545-Full3 part 2 (Juan de Fuca Flank Hydrogeology)** Additional items may be added as requested by SPC or IODP-MI. The tentative dates for the first 2005 meeting are June 27-28. The meeting is scheduled for Edinburgh, Scotland.

Barry Katz will advise the proponents of the scheduling and safety package needs.

Adjournment Meeting was adjourned at 15:30.